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DEPARTMENT OF FINANCE

Finanční analýza vybrané společnosti

Financial Analysis of Selected Company

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2. Description of the Financial Analysis Methodology
3. Financial Characteristics of Selected Company
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5. Conclusion

Bibliography
List of Abbreviations
Decleration of Utilization of Results from the Bachelor Thesis
List of Annexes
Annexes

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Contents:

1 Introduction 5

2 Description of the financial analysis methodology 7

2.1 Financial statement 7

2.1.1 Balance sheet 7

2.1.2 Income statement 9

2.1.3 Cash flow statement 11

2.2 Common-size analysis 13

2.2.1 Vertical common-size analysis 13

2.2.2 Horizontal common-size analysis 14

2.3 Financial ratio analysis 14

2.3.1 Profitability ratios 15

2.3.2 Liquidity ratios 16

2.3.3 Solvency ratios 17

2.3.4 Activity ratios 18

2.4 Dupont analysis 21

3 Financial characteristics of selected company 24

3.1 Introduction of company 24

3.1.1 History 24

3.1.2 Business structure of Haier 25

3.1.3 Competition of industry 26

3.1.4 Development of Haier 27

3.2 Common-size analysis of Haier 27

3.2.1 Vertical common-size analysis of Haier 27

3.2.2 Horizontal common-size analysis of Haier 32

4 Financial analysis of selected company 38

4.1 Liquidity ratios of Haier group 38

4.2 Activity ratios of Haier group 40

4.3 Solvency ratios of Haier group 43

4.4 Profitability ratios of Haier group 46

4.5 Dupont analysis of Haier group 49

4.6 Summary 56

5 Conclusion 59

Bibliography 61

List of Abbreviations 62

Decleration of Utilization of Results from the Bachelor Thesis

List of Annexes

Annexes

1 Introduction

This thesis uses financial analysis to analyze a company's performance and trends in that performance. Financial analysis involves annual report, financial data and financial analysis tools such as common-size analysis and financial ratio analysis. Financial analysis can evaluate the efficiency of the company's operations, credit policies and its creditworthiness and others. For people, analyzing of a company's performance can provide the right information to investors, creditors, shareholders or other individual and organization how to choose a suitable investment. For companies, financial analysis can help them to change or make more right and appropriate strategies and policies to operating, management, selling or other things. At the same time, financial analysis provides the past information of a company, assessing the present market values of a company and forecast the future situation of a company.

The aim of this thesis is assessment of financial health of the selected company Haier group though using varise ratios and make the assessment. We select Haier group and use five years (from 2009 to 2013) annual reports to analyze.

This thesis includes five chapters. First and last chapter is introduction and conclusion. Other chapters are the main parts. Second chapter is description of financial analysis methodology, third chapter is the common-size analysis of Haier group and forth chapter is financial ratio analysis of Haier group.

In chapter 2, we describe the financial statement and the methodology of common-size analysis, financial ratio analysis and DuPont analysis. First, we introduce three statements: the balance sheet, the income statement and the cash flow statement. Then we describe the two types of common–size analysis: vertical common-size analysis and horizontal common-size analysis. Thirdly, we introduce four types of financial ratios: liquidity ratio, solvency ratio, activity ratio and profitability ratio. At the end of this chapter, we introduce DuPont analysis of ROE.

In chapter 3, firstly, we introduce the company Haier group. It includes four parts: history, business structure of Haier group, competition of industry and development of Haier. Then we use vertical common-size analysis and horizontal common-size

analysis of balance sheet and income statement to analyze the trend of company during five years (from 2009 to 2013).

In chapter 4, we use financial ratio analysis to evaluate Haier group's financial health. Firstly, we use four main financial ratios (liquidity ratio, solvency ratio, activity ratio and profitability ratio) to calculate and describe the trend of financial health. Then we use Dupont analysis to in-depth analyze the influence factors of ROE.

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2 Description of the financial analysis methodology

In this chapter, we will introduce financial analysis methodology that will be used in glowing chapter. This chapter includes two parts. First, three primary financial statements, balance sheet, income statement, the statement of cash flow. The next, we explain two method of financial analysis, common-size analysis and financial ratio analysis.

Financial analysis is a tool in order to select evaluate and integrate the financial date, as well as formulate the assessment of the company's present and future financial position and health.

Financial analysis can evaluate company's operations, expences management, credit policy, etc. In order to analyze the financial positions of company through using two methods of financial analysis, common-size analysis and financial ration analysis based on the balance sheet, income statement and cash flows.

2.1 Financial statement

Financial statement is one of the component of the financial reports. Financial statement records the economic activities of a company and reflects the company's performance and financial position. These information provides to investors, creditors, analysts and others who interested in company's financial position.

In this part, we will introduce three statements, balance sheet, income statement and the statement of cash flow.

2.1.1 Balance sheet

The balance sheet also calls the statement of financial position, presents a company what it controls (assets) and owns (liabilities) at a given point in time. A stable balance sheet includes asset, liabilities, owner s equity is different from these two relationship. Owner s equity represent the excess of assets over liabilities. This amount belongs to

the shareholders of company or owners of the company and the interest of entity is after deducting its liabilities.

The relationship among asset, liabilities and equity is:

$$Asset = Liabilities + Equity \tag{2.1}$$

Tab 2.1 A example of balance sheet

Asset	**Equity**
Long-term assets	Shared capital
Equipment	Common shares
Land	Preferred shares
Buildings	Retained profits
Trademark	Profit of the current year
Shares	
Current assets	**Liabilities**
Receivables	Accounts payables
Inventories	Accrued expenses
Cash and cash equivalents	Short-term notes
Other current assets	Other long-term liabilities

Balance sheet is the double-entry bookkeeping. A balance sheet shows assets on the left-hand side and the claims of creditors and shareholders on the right-hand side.Both assets and liabilities by convention appear in descending order of liquidity,or the length of time it takes for accounts to be converted into cash in the normal course of business. From these, we can show the corporate liquidation ability, payable ability and ability of capital turnover, thus they can help investors, creditor to make economic decisions.

Long-term assets have more than one year maturity and are relatively long life and relatively low liquidity. It is about tangible assets (e.g. equipment, land, buildings, etc.), financial (intangible) assets (e.g.trademark, patents, goodwill, etc.) and financial investment (e.g.investment in securities and assets of other firms-shares, bonds, etc.). The long-term assets are the most biggest ratio in the assets.

Current assets are in the form of cash or can be relatively quickly converted into cash. Liquidity is around the assets. This assets includes receivables, inventories, short-term securities, cash and cash equivalents. Receivables represent money owned the firm by individuals or by other companies on the sale of products (goods) on credit.

Owner's equity represents the shareholder's investment or the capital belongs to the owners of the company. Sum of common shares, preferred shares, retained profits (the profits kept before) and profit of the current year belongs to equity. Equity is mix of capital for financing of company liabilities stand for money, that has been borrowed and must be repaid back at some predetermined date. It composes bu current liabilities divide into three parts, accounts payables, accrued expenses and short-term notes.

Accounts payables are credit extended by suppliers to a company when it purchases inventories.

Liability represents money (capital), that has been borrowed and must be repaid back at some predetermined date. It has two types, current (short-term) liabilities and long-term liabilities. Current liabilities includes borrowed money must be paid during 1 year, examples are accounts payable, short-term notes, accrued expenses, etc. Long-term liabilities include money that has been borrowed for longer than 1 year like loans fro banks, issued bonds, etc.

2.1.2 Income statement

Income statement presents information on the financial results of a company's business activities over a period of time,often a year. The income statement indicates the amount of profit generated by a company over a certain year. The basic equation underlying the income statement is :

Revenues - Cost = Net income/loss. (2.2)

Tab2.2 A Example of income statement

Revenues
Cost of services
Gross profit
Selling, general and administrative expenses
Income from operations
Interest income
Interest income
Other expense
Income before income taxes and minority interest (EBIT)
Provision for income taxes
Income before minority interest (EBT)
Minority interest
Net income (EAT)

Source: Thomas R. Robinson,CFA, Hennie van Greuning, CFA, Elaine Henry,CFA, Michael A. Broihahn, CFA; International Financial Statement Analysis: P118.

Revenues is the amounts charged for the delivery of goods or services in the ordinary activities of the company.

The net income and net loss, which is asset inflows and outflows, respectively, not directly related to the ordinary activities of the business.

Costs is the amount that must be spent in the ordinary activities of the company.

Income statement has two main subtotals: Operating activity and Financing activity.

Operating activity sometimes called operating profit before interest and taxes-EBIT. It includes operating revenues and operating costs. Operating revenues are revenues from sale of products, goods and services. Operating costs associated with generating

operating revenues (raw material consumption, electricity consumption, depreciation, etc.)

Financing activity compared financial revenues and financial costs. Financial revenues are interests receives, and revenue from owned securities (dividends received, coupons received, etc.). Financial costs are interest paid, coupons paid (if bonds are issued, etc.)

2.1.3 Cash flow statement

Cash flow statement provides information about company's cash inflows and cash outflows during a period , often a year. Disclosing the sources and uses of cash helps creditors, investors, and other statement users evaluate the company's liquidity, solvency financial flexibility. There are also some relationship among balance sheet, income statement and cash flow statement. These cash inflows and cash outflow in a company show how cash flow link the ending cash balance to the beginning balance shown on the balance sheet in the company. The cash-based information provide by the cash flow statement contracts with the accrual-based information from the income statement. The cash flow statement classifies all company cash flows into operating, investing, and financing activity cash flows.

The basic equation underlying in the cash flow statement is:

Cash flow from operating activities + *Cash flow from investing activities* + *Cash flow from financing activities.* (2.3)

Tab 2.3 A Example of cash flow statement

Cash Flow from Operating Activities
Cash received from customers
Cash paid to employees
Cash paid for other operating expenses
Cash paid for income tax
Net cash provided by operating activities
Cash Flow from Investing Activities
Cash received from sale of equipment
Cash paid for purchase of equipment
Net cash used for investing activities
Cash Flow from Financing Activities
Cash paid to retire long-term debt
Cash paid for dividends
Net cash used for financing activities

Sourece: Thomas R. Robinson,CFA, Hennie van Greuning, CFA, Elaine Henry,CFA, Michael A. Broihahn, CFA; International Financial Statement Analysis: P238

Operating activities include inflows and outflows from day-to-day company's activities. Cash inflows result from cash sales and from collection of accounts receivable. Examples include cash sales of goods, products or services, collection of receivables, etc. Cash outflows results are from cash payments for inventory, salaries, operating activities include cash payments for inventory, salary and wages payments, taxes, paying payables, etc.

Investing activities are those activities associated with the acquisition and disposal of long-term assets, such as tangible assets (property, equipment,etc.), intangible assets (know-how, patents,etc.) and long-term investments in the shares and bonds.

Financing activities include inflows and outflows from obtain and repaying capital (equity and long-term debt). Cash inflows in this category include cash from issuing shares (common and preferred) or bonds and cash from credits and borrowings. Cash

outflows include paying out dividends, repay bonds, and repay credits and borrowings, etc.

2.2 Common-size analysis

Common-size analysis is the restatement of financial statement items using a common denominator or reference item that allows us to identify trends and major differences. In fact, common-size analysis makes a ratio between every financial statement item and the base item.

There are two main types: vertical common-size analysis and horizontal common-size analysis.

2.2.1 Vertical common-size analysis

The most common is vertical common-size analysis, is a analysis of the changes in the proportions of selected benchmarks (total revenues, total assets, total liabilities, etc.). For the income statement, the benchmark is revenues and for a given periods, each item in the income statement is restated as a percentage of revenues. For the balance sheet, the benchmark is total assets and for a given point in time, each item in the balance sheet is restated as a percentage of total assets. For the income statement, the vertical common-size divides each income statement item by revenue, or by total assets. Revenue is separated into four services in company, each item shown as a percentage of total revenue. From different benchmark can give us different conclusion. We can scale each account by the reference account and use the resulting percentages to make comparisons across companies.

The calculation of vertical analysis can be written:

$$Y\% = \frac{Xi}{\sum_{n} Xi} \cdot 100, \tag{2.4}$$

where, for example, $\sum_{n} Xi$ represents the benchmark, total assets, total revenue or else. It is the item which compares with benchmark.

2.2.2 Horizontal common-size analysis

The horizontal common-size analysis is the time-series analysis of using absolute changes and percentage to identify trends and growth in accounts over time. This analysis uses absolute changes and percentage to show the company's trend. The absolute change is:

$$\triangle X = X_{n+1} - X_{n}, \tag{2.5}$$

where $Xn+1$ represents the reference item in the benchmark or base period, and the Xn represents the same item in the benchmark or base period. The relative change is as follow:

$$\%Y = \frac{\triangle X}{X_n} \cdot 100, \tag{2.6}$$

where $\triangle X$ is the absolute change which is the margin Xn *to* $X_{n+1.}$

2.3 Financial ratio analysis

Financial ratio analysis use the financial accounting and other information to assess a company's financial performance and financial condition. The aim of the financial analysis is to formulate the assessment of the company's present and future financial health. This ration analysis are calculated from financial data and market date, of course, the interpretation of these ratios we should take into account the company's specific events and the general economic cycle. There are some classifications of the financial ratio analysis: profitability ratios, liquidity ration, solvency ratios and activity ration.

2.3.1 Profitability ratios

Profitability reflects a company's competitive in the market. Profitability ratios measure the ability to generate profit from invested capital in the form of return during a period (in %). The higher the profitability ratios, the better competitive position of the company.

Gross profit margin (GPM) is the ratio of operating income to total revenues. The indicate of this ratio is to know how much of every currency (e.g. euro) of revenues is left after the cost of goods sold. The function is:

$$GPM = \frac{Gross\ profit}{Total\ revenue}. \tag{2.7}$$

Operating profit margin (OPM) is the ratio of operating profit (i.e, profit before interest and taxes) to revenues.Its function is:

$$OPM = \frac{EBIT}{Rev}, \tag{2.8}$$

where *EBIT* is the operating profit. The operating profit margin means how will the company manages its operations. It measures operating profit per one unit of revenues.

Net profit margin (NPM) is the ratio of the net income (income after tax) to revenues. The function shows as:

$$NPM = \frac{EAT}{Rev}, \tag{2.9}$$

where EAT is the net income. The net profit margin measures net income (as a percentage) per one unit of revenues.

Pretax profit margin isolates the effects on profitability of leverage and other (non operating) income and expenses on the company's profitability. The function of pretax profit margin is:

$$Pretax\ profit\ margin = \frac{Earnings\ before\ taxes}{Total\ revenue} . \quad (2.10)$$

Pretax profit also called earning before tax.

Return on assets (ROA) is the ratio of net income to assets. It measures net income (as a percentage) per one unit of unit. The higher the ratio,the more income is generated by a given level of assets. The ratio shows as:

$$ROA = \frac{Net\ income}{Total\ assets} . \quad (2.11)$$

Return on equity (ROE) is the ratio of net income (also called earning before tax) to shareholders' equity and particularly directed to the return to shareholders. ROE measures the return earned by a company on its equity assets, including minority, preferred stocks, and common stocks. The function of *ROE* shown as:

$$ROE = \frac{Net\ income}{Equity} . \quad (2.12)$$

2.3.2 Liquidity ratios

Current ratio is the ratio of current assets to current liabilities. It measures that company has ability to satisfy its current liabilities. A higher ratio represents a higher level of liquidity. The ratio can be written:

$$Current\ ratio = \frac{Current\ assets}{Current\ liabilities} . \quad (2.13)$$

This ratio measures amount of current assets for every unit in current liabilities.

Quick ratio is more stringent measure of liquidity. The quick ratio reflects the fact that certain current assets--such as prepaid expenses, some taxes, and employee-related prepayments. This ratio indicates a company's ability to satisfy current liabilities with its most liquid assets. The calculate shows as:

$$Quick\ ratio = \frac{Current\ assets - Inventories}{Current\ liabilities}, \tag{2.14}$$

$$\text{or} \quad = \frac{Cash - Short\text{-}term\ marketable\ investments + Receivables}{Current\ liabilities}. \tag{2.15}$$

Cash ratio is the ratio of cash and short-term marketable investments to current liabilities. The ratio measures the company's ability to meet its current obligations with just the cash and cash equivalents on hand. The cash ratio can be computed as:

$$Cash\ ratio = \frac{Cash + Short\text{-}term\ marketable\ investments}{Current\ liabilities}. \tag{2.16}$$

2.3.3 Solvency ratios

Solvency ratios also called debt ratios. Solvency involves a company's ability to fulfill its long-term debt obligations. Solvency ratio assesses a company's ability to pay its long-term obligations. This ratios provide information considering the amount of debt in the company's assets structure.

Solvency ratios include two types. First type is debt ratios and focus on the balance sheet and measures the amount of debt capital relative to equity capital. Second is coverage ratios and the main point is the income statement and measures the ability of a company to cover its debt payments.

Debt-to-assets ratio (also called debt ratio) is a measure of the proportion of total assets financed with debt. Generally, lower debt means lower financial risk and stronger solvency. The function is:

$$Debt\text{-}to\text{-}assets\ ratio = \frac{Total\ debt}{total\ assets}. \tag{2.17}$$

Debt-to-equity ratio measures the amount of debt capital relative to equity capital, and we can use the debt and equity as sources of capital to finance the company's assets, evaluating to use book values of the capital sources, which are provided on the balance sheet:

$$Debt\text{-}to\text{-}equity\ ratio = \frac{Total\ assets}{Total\ shareholders'\ equity}. \tag{2.18}$$

If the debt-to-equity ratio is higher than one, the company uses more debt for assets financing than equity.

Financial leverage ratio (often called the leverage ratio/equity multiplier) measures the amount of total assets to each one money unit of equity. Higher the financial leverage ratio, the more leveraged the company is using debt and other liabilities to finance assets. The function of financial leverage ratio is as follow:

$$Financial\ leverage = \frac{Total\ assets}{Total\ sharehilders'\ equity}. \tag{2.19}$$

Interest coverage ratio, also referred to as the times-interest-earned ratio, which includes the number of times a company's EBIT could cover its interest payments. The higher interest coverage ratio indicates stronger solvency and offers the greater assurance the company's debt (i.e., bank debt, bonds, notes) from operating earnings. The function is:

$$Interest\ coverage\ ratio = \frac{Earning\ before\ interest\ and\ taxes}{Interest\ payments}. \tag{2.20}$$

Fixed charge coverage relates fixed charges(e.g., ease payments and preferred dividends), or obligations to the cash flow generated by the company. When to gauge a company's ability to cover its interest and leases payments, we can use this ratio:

$$Fixed\text{-}charge\ coverage\ ratio = \frac{Earnings\ before\ interest\ and\ taxes + Lease\ payments}{Interest\ payments + Lease\ payments}. \tag{2.21}$$

2.3.4 Activity ratios

We use the activity ratios as measures of how utility of company's assets are used. The goal of activity ratios is how much a company invested in a particular assets

relative to the revenues. Activity ratio divides into two parts: turnover ratios and number of days. First part is turnover ratios and second part is number of days.

Total asset turnover (TAT) is a ratio which tells us how successfully the company's assets generate revenues. Higher total asset turnover ratio, and it represents the company's assets are highly utilization. The formula of *TAT* is:

$$TAT = \frac{Revenues}{Assets} \quad . \tag{2.22}$$

Inventory turnover (ITR) is a measure of the number of times inventory is sold or used in a time period. The More times of a circle, the profit will be higher. The ratio is computed as:

$$ITR = \frac{Cost\ of\ goods\ sold}{Average\ inventory} \quad . \tag{2.23}$$

Receivables turnover is a ratio of total revenues to average account receivable. This ratio means highly efficient of credit and collection. The longer customers pay on their accounts, the higher the investment in working capital will be required by the company. The function is:

$$Receivables\ turnover = \frac{Total\ revenue}{Average\ receivables} \quad . \tag{2.24}$$

Working capital turnover compares total revenues with average working capital. This ratio measures how efficiently working capital is employed. It formula can be written:

$$Working\ capital\ turnover = \frac{Total\ reverue}{Average\ working\ capital} \quad . \tag{2.25}$$

Number of days of inventory (DSI) calculates the ratio of the amount of inventory to the average days' cost of goods, the function shown as:

$$Number\ of\ days\ of\ inventory = \frac{Inventory}{Average\ day'scost\ of\ goods\ sold} \quad , \tag{2.26}$$

$$\text{or} \quad = \frac{Inventory}{Cost\ of\ goods\ sold/365} \ . \tag{2.27}$$

The days usually use 365 days.

Days of sales outstanding (DSO) which is the time period of a sale—an account receivable is created and the account receivable is in cash. The number of days of receivables' function is shown as:

$$Days\ of\ sales\ outstanding \ = \frac{Accounts\ receivabel}{Average\ day's\ revenue} . \tag{2.28}$$

$$\text{or} \quad = \frac{Accounts\ receivable}{(Revenue/365)} \ . \tag{2.29}$$

The days of a year, which usually uses 365.

Number of days of payables represents the liabilities on the balance sheet to see how long it takes a company to pay its short-term obligations. The formula is:

$$Number\ of\ days\ of\ payables = \frac{Accounts\ payable}{Average\ day's\ purchases} \ . \tag{2.30}$$

Average day's purchases id calculated by purchases divide by the days of a year, usually is 365.

Fixed assets turnover (FAT), which means how efficiently the company generates revenues from its' investments in fixed assets. Higher fixed-asset turnover ratio, more efficient the company's fixed assets in generating revenue. Its function is:

$$FAT = \frac{Revenue}{Net\ fixed\ assets} . \tag{2.31}$$

2.4 Dupont analysis

Dupont analysis is a useful analysis that use inner link of the financial decomposition to understand which part drives a company's profit level. Here ,we analyze the ROE.

ROE means the return a company generates on its equity capital. Decomposing ROE involves expressing basic ratio (i.e. net income divided by average shareholders' equity) as the product of component ratios.

$$ROE = \frac{Net\ income}{Equity}\ .$$

We use Dupont analysis as following steps: First, we decompose the ROE into two parts, the equation is as follow:

$$\frac{Net\ income}{Equity} = \frac{Net\ income}{Total\ assets} \cdot \frac{Total\ assets}{Equity}\ , \tag{2.32}$$

where $\frac{Net\ income}{Total\ assets}$ is ROA (return on assets), $\frac{Total\ assets}{Equity}$ is financial leverage.In this equation, company's ROA and financial leverage affect ROE. A company can increase ROE by increasing ROA or making more effective use of financial leverage.

Then, the individual components such as ROA can be decomposed. The formula can be written:

$$ROE = \frac{Net\ income}{Revenue} \cdot \frac{Revenue}{Total\ assets} \cdot \frac{Total\ assets}{Equity}\ , \tag{2.33}$$

Which can be interpreted as:

$$ROE = Net\ profit\ margin \cdot Asset\ turnover \cdot Leverage\ . \tag{2.34}$$

If we separate the effects the taxes and interest, we can decompose the net profit margin and the ROE can be computed as:

$$ROE = \frac{Net\ income}{EBT} \cdot \frac{EBT}{EBIT} \cdot \frac{EBIT}{Revenue} \cdot \frac{Revenue}{Total\ assets} \cdot \frac{Total\ assets}{Equity}\ , \qquad (2.35)$$

Where $\frac{Net\ income}{EBT}$ is tax burden, it reflects how much of a company's pretax profits it gets to keep. A higher value for the tax burden represents a company can keep higher pretax profits. $\frac{EBT}{EBIT}$ is interest burden, it captures the effect of interest on ROE, higher borrowing costs reduce ROE. $\frac{EBIT}{Revenue}$ is EBIT margin, the fourth term on the right-hand is again the asset turnover ratio and financial ratio.

There are some method to analyze the influence of each item to ROE. We will describe three methods in this part.

Method of gradual changes is a method can quantify the change in the basic ratio due to the change in the component ratio. The formula shows as:

$$\triangle X_{a1} = \triangle a_1 \cdot a_{2.0} \cdot a_{3.0}, \qquad (2.36)$$

$$\triangle X_{a2} = a_{1.1} \cdot \triangle a_2 \cdot a_{3.0}, \qquad (2.37)$$

$$\triangle X_{a3} = a_{1.1} \cdot a_{2.1} \cdot \triangle a_3, \qquad (2.38)$$

X means the basic ratio. $\triangle X$ is the absolute change in the basic ratio. a presents the component ratio and $\triangle a$ is the absolute change in the component ratio. We use this method to analyze the influence of each item in ROE.

Second is logarithmic decomposition method. Though this method we can know whether how many component ratios we have, we only need one formula for the impact quantification. The calculation is :

$$Xai = \frac{ln\ la_i}{ln\ lx} \cdot \triangle X, \qquad (2.39)$$

where X means basic ratio and $\triangle X$ is absolute change in the basic ratio. l_x presents the index of change in basic ratio and la_i is the index of change in component ratio.

The third method is functional decomposition. This method calculates the relative changes in basic and component. The formula is written as:

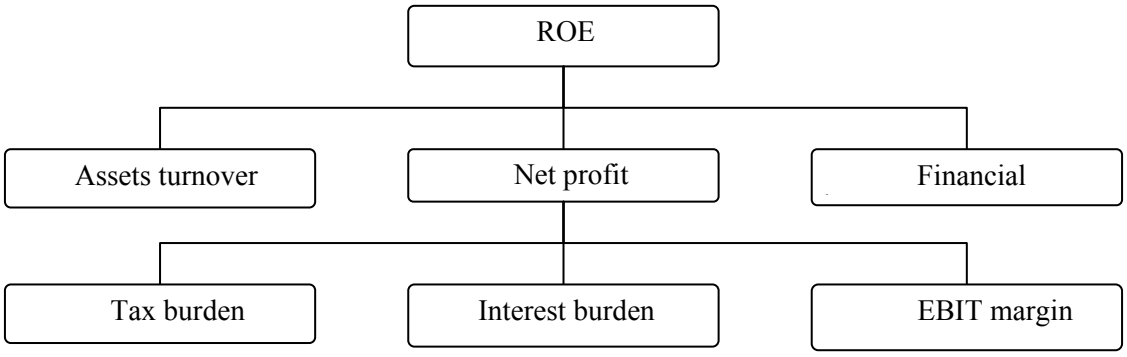
$$\triangle X_{a1} = \frac{1}{R_x} \cdot R_{a1} \cdot (1 + \frac{1}{2} \cdot R_{a3} + \frac{1}{2} \cdot R_{a3} + \frac{1}{3} \cdot R_{a2} \cdot R_{a3}) \cdot \triangle X, \qquad (2.40)$$

$$\triangle X_{a2} = \frac{1}{R_x} \cdot R_{a2} \cdot (1 + \frac{1}{2} \cdot R_{a1} + \frac{1}{2} \cdot R_{a3} + \frac{1}{3} \cdot R_{a1} \cdot R_{a3}) \cdot \triangle X, \qquad (2.41)$$

$$\triangle X_{a3} = \frac{1}{R_x} \cdot R_{a3} \cdot (1 + \frac{1}{2} \cdot R_{a1} + \frac{1}{2} \cdot R_{a2} + \frac{1}{3} \cdot R_{a1} \cdot R_{a2}) \cdot \triangle X, \qquad (2.42)$$

We can use the ROE tree in Chart 2.1 to study the relationship of the individual factors and the function of each item's influence.

Chart 2.1 DuPont Analysis of ROE tree



3 Financial characteristics of selected company

In this chapter we divide into two parts: the introduction of Haier Electronics Group and common-size analysis of Haier Electronics Group. In the first part, we describe the history, the structure of business and competition. In the second part, we introduce financial statement of the company by common-size analysis .

3.1 Introduction of company

Haier Electronics Group separately lists on the Shanghai Stock Exchange and Stock Exchange of Hong Kong. The company and its subsidiary mainly engaged in the research, development, manufacture and sale of washing machines and water heaters in China under the brand name of Haier. The Group also engaged in the integrated channel services business for the home electric appliance products such as refrigerators, televisions and air-conditioners, of the Haier and non-Haier brands, to expand revenue sources and drive profitable growth.

3.1.1 History

Haier Group was founded in 1984 in Qingdao, China, is the world's first brand of white goods. As of 2009, Haier has established 29 global manufacturing base, eight comprehensive research and development centers, 19 overseas trading companies, employees more than 60,000 worldwide million. In 2009, Haier's global turnover realized 180.3 billion RMB, the brand value of 81.2 billion RMB, and in 2009 Haier ranked top brand value for nine consecutive years in China. Haier company mainly engaged in refrigerators, air conditioners, electric freezer, dishwasher, gas stove and other small appliances and other related products under the brand is water heaters, computers, mobile phones, home integration and other 18 products was named China's brand. On August 30, 2005, Haier was the “British Financial Times as “China's top ten world-class brand” first. In 2006, in the "Asian Wall Street Journal" organization named the “top 200 enterprises in Asia” . As of December 22, 2013, Haier white goods brand in the world ranked in the first, and Haier brand retail accounts for the

large household appliances is about 9.7% in the global market, it’s the world's fifth reelection. Ranking according to the manufacturer, Haier large household appliances of 11.6 percent share in 2013 ranked the world's first global retail accounts for the first time. Haier has been among the ranks of world-class brands, and its influence is rising rapidly and expanding the global world

3.1.2 Business structure of Haier

By now, Haier Group has three development business in Hongkong. They are washing machine business, integrated channel services business, water heater business. In this part, we will introduce these different business’ development .

First business is washing machine business. December 2013, the global appliance market research report from the World authoritative market research agencies released by Euromonitor International, Haier washing machine manufacturer with 16.1% and 13.3% retail volume share of retail volume share of of the brand as the world's first double entry. So far, Haier washing machines have been sold worldwide for five consecutive years first. Haier washing machines always been concerned about the needs of users worldwide, with action and vivid interpretation of the concept of development potential -user needs and complaints into innovative products.

Integrated channel services business is also important role in business structure. This business includes distribution business, logistics business, after-sale service business and e-commerce business. Haier Group chose to work with a professional third-party logistics companies, logistics outsourcing services to provide fast and efficient third-party logistics companies, especially logistics services to cover the country's logistics company.

Third is the water heater business. Haier water heater as the "Global Water Solutions Specialist", through technology, products, and services a full range of innovative, extremely satisfy the diverse needs of consumers. Currently has five global R & D centers, four production bases, selling more than 30 countries and regions in the world

3.1.3 Competition of industry

In recent years, China's economy has maintained rapid growth, the gradual recovery of the international market, Haier promotes the home appliance industry with a new high, household appliances industry showed exports and domestic sales booming situation. Taking the home appliances to the countryside, energy saving and the policy of expanding domestic demand-driven industry sales to new highs. Bulk raw material prices increased, RMB appreciation, industry competition and other factors to bring some pressure on profitability of the home appliances industry

Development of China's home appliance industry from the current situation, generally considered to enter a mature stage, which is the industry life cycle stages. However, Haier has entered a mature stage companies.

In recent years, China's home appliance industry develops stable as a whole, but affected by the adjustment of product structure and the structure of competition and other factors. white goods home appliance industry has become the fastest-growing varieties. Due to the government policy, it was good for recovering the industry of white goods. At the same time, the consumer demand expanded and white goods industry has taken the lead out of the woods.

Due to overdraw function of early activities such as taking home appliances to the countryside, trading old to new, energy saving and other policies, and the domestic real estate regulation and foreign economic downturn, the home appliance industry into a low growth in 2012. But we can still see the industry gradually turn a good sign. Government also published some new policy to stimulate the industry increasing.

In general, home appliance industry and changes in the external environment have a huge influence to the Haier performance. Hence, Haier should seize the chance to develop and at the same time need to pay attention to the RMB exchange rate, labor costs, raw material prices and other conditions, in order to face the challenge.

3.1.4 Development of Haier

From 1984, Haier Group experienced the brand building strategy,diversification strategy, internationalization strategy, global brand strategy and networking strategy five stages of development. Nowadays, it is important to use fourth and fifth strategy.

The fourth strategy is global brand strategy. Under the premise of the Internet's development, Haier proposed user-central selling services. Internet era has brought fragmentation in the market. Enterprise should shift from "enterprise-central selling products" to "user-central selling services" to attract consumers. Develop global brand is also the active performance of the economic cooperation in the world.

The fifth strategy is networking strategy. On the continuation of the strategy of the previous stages, Haier abandoned the traditional concept which focus on central of itself, and began to connect with the Internet to build a modern enterprise. Internet era has subvert the traditional economic development model. As to Haier, there are t some aspects different from traditional marketing, Mass customization, on-demand design, on-demand fabrication and on-demand distribution.

3.2 Common-size analysis of Haier

In this part, we describe the common-size analysis of Haier through vertical common-size analysis and horizontal common-size analysis.

The simple balance sheet of Haier Group you can find the complete balance sheet is in Annex 1 and complete income statement is in Annex 2. We will use five years' data (2009-2013) to analysis.

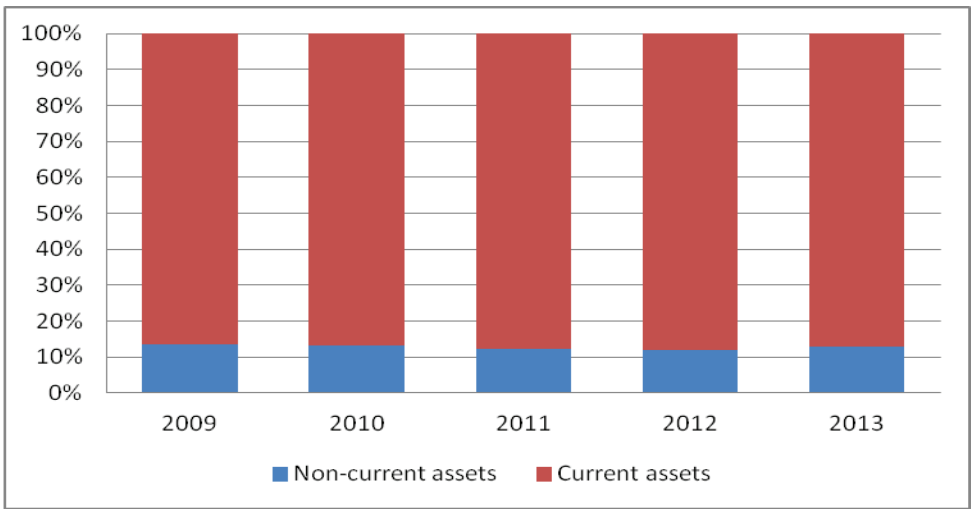
3.2.1 Vertical common-size analysis of Haier

This part is the vertical common-size analysis of Haier. Vertical common-size analysis shows each item on a statement is in the percentage of the selected benchmark. Assets is given as benchmark. The percentage result is shown in Tab 3.1 and the historgram presents in Chart 3.1.

Tab 3.1 The proportion of each item in total assets (%)

	2009	2010	2011	2012	2013
Cash	23.29	27.83	27.60	29.47	31.19
Account receivables	55.63	45.52	44.94	44.64	41.56
Inventories	6.27	13.44	14.73	13.61	13.21
Current assets	86.53	86.79	87.88	88.07	86.97
Non-current assets	13.47	13.21	12.12	11.93	13.03
Total assets	100.00	100.00	100.00	100.00	100.00

Chart 3.1 Vertical common-size of assets



In Tab 3.1, we can find cash is increased during five years, expect in 2011.It is decreased in 0.23% in 2011. As we know, if a company hold more cash, it tells us they can not realize the benefit maximization. However, the average of cash over these five years is reasonable in this company. It does not have much cash, and it can dispose the liabilities and refinancial debt well. The proportion of account receivables was slightly decreased in five years, but the proportion is also high. The proportion of inventories was rapid growth in three years, 2009, 2010, 2011, and especially in 2011 the proportion is higher than other years.during 2012 to 2013, the proportion decreased. Due to increased sales and expansion of production scale makes inventory growth. At the same time in 2011, in order to adopt different products operating cycle, Haier

enhanced inventory management, for example, increasing the air-conditioning operation

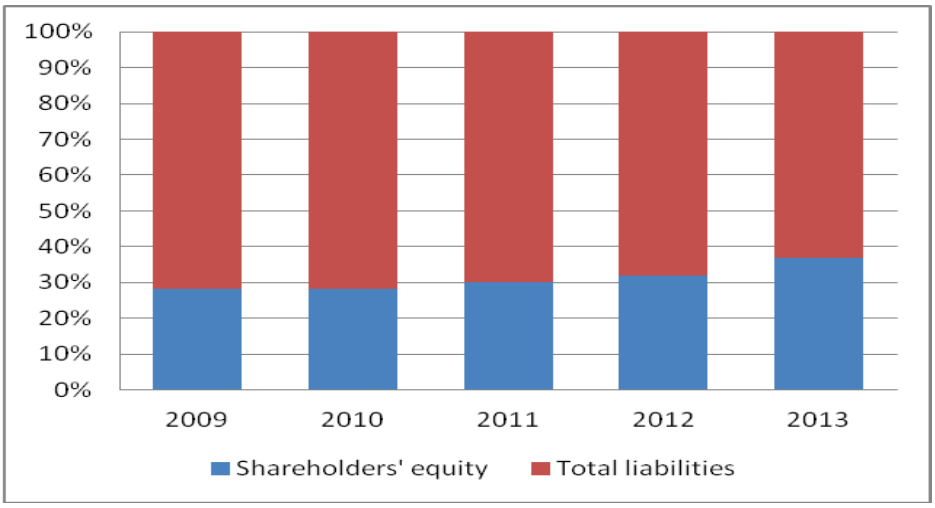
The proportion of non-current assets was 13.47% in 2009 and decreases to 11.93% in 2012, then increased to13.03% in 2013. The proportion of current assets increased from 86.53% to 88.07% in pre-four years, and in 2013, the proportion was decreased to 86.97%. Because pledged deposits in 2013 was increased more. According to the vertical analysis, the proportion of current assets in 2009, 2010 and 2013 were lower than 2011 and 2012. The reason was in 2009, Haier had extra invest in an associate of non-current assets. In 2010, pledged deposits of current assets dropped and in 2013, there were two extra income of non-current assets, such as goodwill and payment for investment .

Then we can calculate the proportion of each item in equity and liabilities. Given assets as the benchmark. The percentage results are in Tab 3.2, and the historgram displays in Chart 3.2.

Tab 3.2 The proportion of each item in total equity and liabilities (%).

	2009	2010	2011	2012	2013
Total equity	28.17	28.23	29.99	32.07	36.82
Non-current liabilities	2.96	2.10	7.39	7.97	6.36
Current liabilities	68.87	69.67	62.62	59.96	56.81
Total liabilities	71.83	71.77	70.01	67.93	63.18
Total equity and liabilities	100.00	100.00	100.00	100.00	100.00

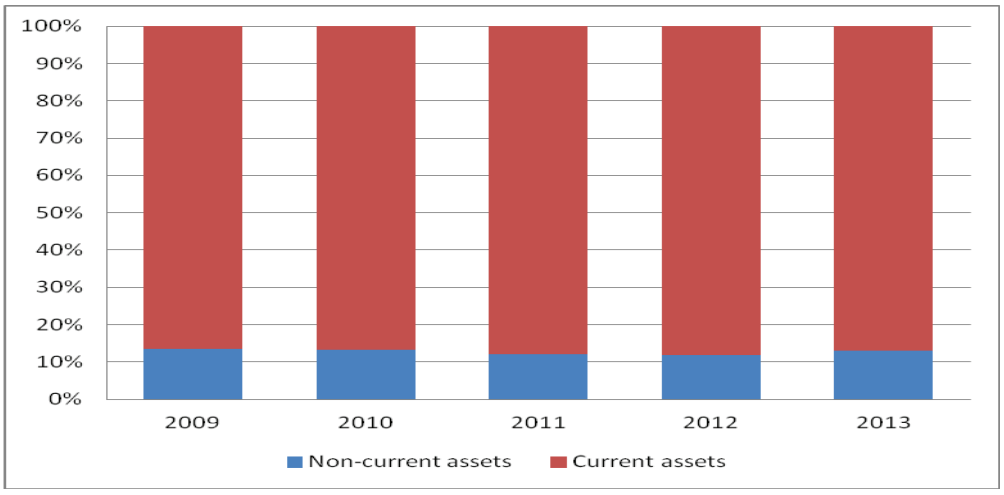
Chart 3.2 Vertical common-size analysis of equity and liabilities



In the Tab 3.2, the reserves of total equity is increasing during these years, except in 2010, and the proportion of equity also increases. Because the competition was fierce in recent years, Haier had to attract more investors, and issues more capital. Another reason was thanks to complete to the holders of the 33% Haier Group in Deutsche Bank shares acquired in 2009 years. Furthermore, the reserves of total liabilities gradually decreased in five years, and the proportion of liabilities also decreased. However, the total liabilities were also higher than total equity.

We take the histogram to show the non-liabilities and current liabilities in Chart 3.3.

Chart 3.3 Vertical common-size analysis of liabilities



In Chart 3.3, we can find, the main proportion of liabilities was current liabilities, and non-current liabilities was small. In 2009 and 2010, the proportion of non-current liabilities was very low, but in 2011, the proportion increased fiercely to 8.41%, and the next two yeas the average of non-current liabilities was stable. Because during the operating activities, company used more extraneous long-term fund, such as convertible bonds. The proportion of current liabilities was decreasing from 80.27% to 65.32%. We can find the equity increases during these years, and some part of current liabilities converted into equity due to the marketing strategy of Haier. However, it was also the main part of liabilities.

We also make vertical common-size of income statement. Given revenues as the benchmark. The proportion of each item to total revenue is in Tab 3.3, and the income statement of Haier shows in Annex 2. The historgram is expressed in Chart 3.4.

Tab 3.3 Vertical common-size analysis of revenues (%).

	2009	2010	2011	2012	2013
Total operating expenses	20.28	9.50	11.42	12.09	10.62
Profit from operations	79.69	90.48	88.58	87.91	89.38
Finance costs	0.06	0.01	0.04	0.12	0.11
EBT	4.99	4.00	3.69	4.03	4.22
Taxation	1.12	1.19	0.77	0.96	0.88
EAT	3.86	2.81	2.92	3.06	3.35
Total operating revenues	100.00	100.00	100.00	100.00	100.00

In Tab 3.3, from the vertical common-size analysis, we can see the proportion of total operating expenses was 20.28% in 2009, but in other four years, the proportion decreased especially in 2010, it was 9.5%. The proportion of profit from operations was the biggest part in this table. The average of profit from operations was increasing stable, but in 2010, the proportion increased fiercely. Externally, in 2010, the global economic recovered and large growth of global refrigerator market, washing machines market and air conditioning market, reversing the downward trend in the industry in 2009. In China, washing machines and air-conditioning industry sale growed. The

proportion of EBT was stable, but in 2011 decreased to 3.69%. The weight of financial cost was lower in this table, and also in 2010 the proportion was extremely low. Taxation increased in 2009 and 2010, but in 2011 decreased, then in 2012 and 2013 the changes was stable. The reason was from 2011, income taxation in corporation decreased in China. The proportion of EAT was increasing, except 2010, it decreased to 2.81%.

In general, Haier had a good structure of financial and developed well during 2009 to 2013.

3.2.2 Horizontal common-size analysis of Haier

In this part, we describe horizontal common-size analysis of Haier. Horizontal common-size analysis is an analysis focuses on the financial statement over the past years. Given the data of 2009 as the benchmark. We make the sheet to present absolute and percentage changes of each items and five years. The main items and data in balance sheet are shown in Tab 3.4.

Tab 3.4 The main items in balance sheet in 2009 to 2013. ((RMB 1000)

	2009	2010	2011	2012	2013
Current assets	5,378,170	8,437,080	12,615,810	16,040,609	19,029,897
Non-current assets	837,364	1,283,783	1,739,795	2,172,657	2,851,266
Total assets	6,215,534	9,720,863	14,355,605	18,213,266	21,881,163
Non-current liabilities	184,112	204,421	1,060,629	1,451,729	1,392,403
Current liabilities	4,280,786	6,772,568	8,989,175	10,921,309	12,431,096
Total liabilities	4,464,898	6,976,989	10,049,804	12,373,038	13,823,499
Shareholders' equity	1,750,636	2,743,874	4,305,801	5,840,228	8,057,664
Total liabilities + equity	6,215,534	9,720,863	14,355,605	18,213,266	21,881,163

From the Tab 3.4, we can get the absolute and percentage changes of horizontal common-size analysis. The result of absolute changes of balance sheet is shown in Tab 3.5, and the percentage changes in balance sheet you can see in Tab 3.6.

Tab 3.5 Absolute change in balance sheet in 2009 to 2013.(RMB 1000)

	2009/2010	2010/2011	2011/2012	2012/2013
Non-current assets	446,419	456,012	432,862	678,609
Current assets	3,058,910	4,178,730	3,424,799	2,989,288
Total assets	3,505,329	4,634,742	3,857,661	3,667,897
Non-current liabilities	20,309	856,208	391,100	-59,326
Current liabilities	2,491,782	2,216,607	1,932,134	1,509,787
Total liabilities	2,512,091	3,072,815	2,323,234	1,450,461
Shareholders' equity	993,238	1,561,927	1,534,427	2,217,436
Total liabilities + equity	3,505,329	4,634,742	3,857,661	3,667,897

Tab 3.6 Percentage changes in balance sheet in 2009 to 2013 (%).

	2009/2010	2010/2011	2011/2012	2012/2013
Non-current assets	53.31	35.52	24.88	31.23
Current assets	56.88	49.53	27.15	18.64
Total assets	56.40	47.68	26.87	20.14
Non-current liabilities	11.03	418.85	36.87	-4.09
Current liabilities	58.21	32.73	21.49	13.82
Total liabilities	56.26	44.04	23.12	11.72
Shareholders' equity	56.74	56.92	35.64	37.97
Total liabilities + equity	56.40	47.68	26.87	20.14

In Tab 3.5 and Tab 3.6, according to horizontal common-size analysis, we can find that non-current asset decreased 432,862 hundred RMB and declined about 24.88%. in

2011 and 2012. It was different from other periods. Since 2007, government released the now strategy to stimulate the home appliances industry and rapidly promoted the fame of Haier Group. However, in 2011 industry gradually withdrawed stimulus policies, the rapid growth of the industry gradually entered from steady growth. Therefore, in 2012, intangible assets of non-current assets decreased than before. Another reason was in these years, the interest rate was not high, Haier did not buy the new long-term notes. At the same time, the property industry did not recovery well in China, so the Investment properties of non-current assets decreased. In current asset, between 2010 and 2011, it increased 4,178,730 hundred RMB and increased about 49.53%. It was the biggest change during five years. Because, in 2010 and 2011, Haier in the domestic appliance industry sales promotion rapidly, and continue to improve the sales channels and strengthen cooperation in the Internet. From percentage changes of balance sheet, after 2011, current assets and total assets decreased, but the average of non-current was stable. Between 2011 and 2012, current assets decreased about 27.15%, the next two years, it decreased about 18.64%. Total assets was the same. It represents short-term payable ability was weak and the liquidity was poor in enterprise. It also strengh enterprise ability to resist long-term risks.

Between 2010 and 2011, non-current liabilities increased fiercely, it was 856,208 hundred RMB and increased about 418.85%. It was very different change form other years. The reason was in 2011 Haier continued to promote the business model transformation, increasing product and technological innovation, leading the implementation of development strategies, deepen multi-brand operation and so on. These measures did good function in 2011. In global market, Euromonitor International published, in 2011, the amount of large household appliances, Haier brand retailed in the global market share of 7.8%, won the third world' first. This laurel can give Haier more chances to invest. So in 2011, the changes was too big. Current liabilities decreased and decreased from 58.21% to 13.82% during period.

From 2010 to 2013, the total liabilities decreased and shareholder's equity increased. The reason was in these years, Haier changed some measure in equity, due to decreased the risk and develop more areas, it needed more investors, some part of liabilities convert into equity. The proportion of Total liabilities and equity decreased

and decreased from 56.40 to 20.14. Because total liability decreased more than equity. Non-current liabilities in 2013 was negative growth due to some parts' amount of non-current liabilities decreased or non-growth in 2013.

Next we will describe the horizontal common-size analysis of income statement. The main items of income statement is shown in Tab 3.7.

Tab 3.7 The main items of income statement in 2009 to 2013. (RMB 1000)

	2009	2010	2011	2012	2013
Sales	12,877,993	35,806,672	50,089,857	55,615,047	62,263,162
Cost of sales	9,654,109	31,033,259	42,582,594	46,673,866	53,125,613
Gross profit	3,223,884	4,773,413	7,507,263	8,941,181	9,137,549
Operating (loss)/profit	5,892,585	8,255,931	13,337,015	15,786,096	15,976,808
Finance costs	7,906	4,691	22,492	64,504	68,334
Interest expence	9,000	6,000	27,000	79,000	86,000
EBIT	653,592	1,441,430	1,880,865	2,323,262	2,723,840
EBT	644,592	1,435,430	1,853,865	2,244,262	2,637,840
Taxation	145,297	427,943	386,942	537,285	547,527
EAT	789,889	1,863,373	2,240,807	2,781,547	3,185,367

From the Tab 3.7, we can see the amount of each item during five years. In 2010, the number of sales and cost of sales increased rapidly. Due to the strategy of selling in Haier, zero inventory did work. The reason was zero inventory means the lower cost and higher profit. At the same time, it made Haier become more competition in the industry. Therefore, the finance costs in 2010 were also lower than other years. After 2010, the amount of sales, cost of sales, operating profit and EAT were increased stable. The reason was in these years Haier entered into a stable development stage, the amount of sales, cost of sales and other items will growth slow. Interest expence increased a lot from 2011, because recently years, Haier developed more areas such as mobile phone industry, real estate and so on. It needed more capital to invest, so it borrowed some capital from banks. The number of interest expence increased.

Then we make the results of absolute changes and percentage changes in Tab 3.8 and Tab 3.9.

Tab 3.8 Absolute changes in income statement in 2009 to 2013. (RMB 1000)

	2009/2010	2010/2011	2011/2012	2012/2013
Sales	22928679	14283185	5525190	6648115
Cost of sales	21379150	11549335	4091272	6451747
Gross profit	1549529	2733850	1433918	196368
Operating (loss)/profit	2363346	5081084	2449081	190712
Finance costs	-3000	21000	52000	7000
Interest expence	-3215	17801	42012	3830
EBIT	787838	439435	442397	400578
EBT	790838	418435	390397	393578
Taxation	282646	-41001	150343	10242
EAT	1073484	377434	540740	403820

From Tab 3.8, we can see sales and cost of sales decreased during period, but in 2012 and 2013, it increased. In 2009 and 2010, sales was higher than other years, it was 22928679 hundred RMB. However, in 2011 and 2012, the change of sales was smaller than before. The reason was from 2011, the selling strategy of Haier group changed. Because in 2011, Haier group entered into a stable development state, the amount of sales increased slower than preceding years. Gross profit increased stable, except between 2010 and 2011. Operating profit increased in 2010 and 2011, but decreased a lot in 2012 and 2013. EBT decreased in five years. Between 2009 and 2010, the change was big, it was different than other years. Taxation was on the decline, especially in 2012 and 2013. The reason was government published the policy to reduce income taxation of company. So the changes of taxation between 2012 and 2013 was less. The changes of EAT between 2009 and 2010 was higher than other years. Due to in 2010, global economics recovered and the policy of home appliances industry stimulated, so the amount of sales growed rapidly in 2009.

Tab 3.9 Percentage change of income statement in 2009 to 2013. (%)

	2009/2010	2010/2011	2011/2012	2012/2013
Sales	1.78	0.40	0.11	0.12
Cost of sales	2.21	0.37	0.10	0.14
Gross profit	0.48	0.57	0.19	0.02
Operating (loss)/profit	0.40	0.62	0.18	0.01
Finance costs	-0.33	3.79	1.87	0.06
Interest expence	-0.41	3.50	1.93	0.09
EBIT	1.21	0.30	0.24	0.17
EBT	1.23	0.29	0.21	0.18
Taxation	1.95	-0.10	0.39	0.02
EAT	1.36	0.20	0.24	0.15

According to horizontal common-size analysis, the proportion of sales decreased in 2010, and proportion of cost of sales also decreased in2010. Gross profit increased in 2009, 2010 and 2011, they were 0.48% and 0.57%. From 2009 to 2011, Haier developed on the rise, sales and costs have increased. But by 2012, Haier gradually transformed from the stage of development to the stability. Therefore, in 2009, 2010 and 2011, the sales, cost of sales and gross profit increased and the other years decreased. Operating profit increased 62% between 2010 and 2011, other years decreased. The reason was in 2011, the selling of home appliances increased fiercely, for instance, the refrigerators, washing machines and sub-brand products. EBIT decreased from 1.21% to 0.17%, and in 2012, 2013, the change compare with 2009 was big. Because in 2013, industry of home appliances growed slowly, so company got stable profit. EBT and EAT had the similar reasons.

From these tables and compared with data, we can find the financial trend of Haier was positive and stable during 2009 to 2013.

4 Financial analysis of selected company

In this chapter we will describe financial analysis of Haier. For calculation, we will use methodology and formula from chapter 2. This chapter divides into five parts: liquidity of Haier group, activity of Haier group, solvency of Haier group, profitability of Haier group and Dupont analysis of Haier group.

4.1 Liquidity ratios of Haier group

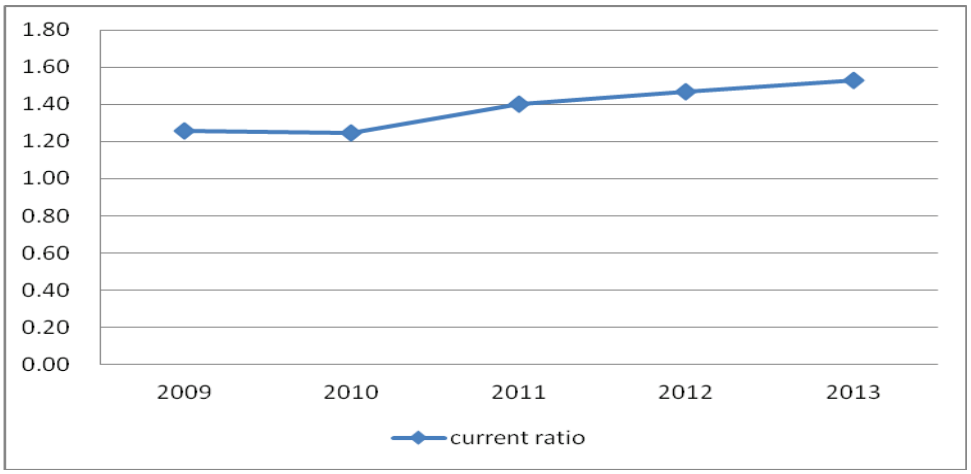
Liquidity ratios measure company's ability to pay immediate and short-term liabilities and obligations. In this chapter, we will use three ratios to analysis: current ratio, quick ratio and cash ratio. Result are presented in Tab 4.1 and trend of each ratios is shown in Chart 4.1 ,Chart 4.2, Chart 4.3. And in this part we use formulas (2.13), (2.14) and (2.16) in chapter 2.3.2.

Tab 4.1 Current ratio of Haier group between 2009 to 2013.

	2009	2010	2011	2012	2013
Current ratio	1.26	1.25	1.40	1.47	1.53
Quick ratio	1.17	1.05	1.17	1.24	1.30
Cash ratio	0.36	0.40	0.45	0.50	0.57

The trend of current ratio you can see in Chart 4.1.

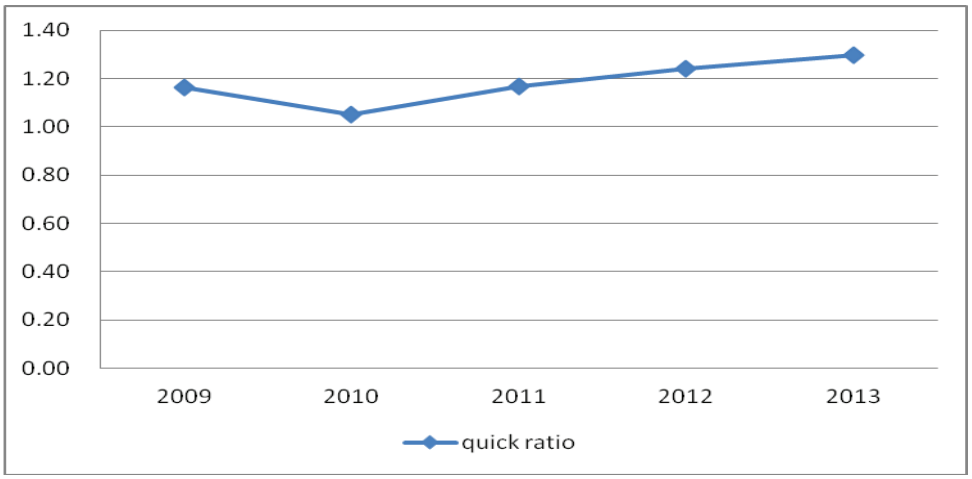
Chart 4.1 Trend of current ratio of Haier group between 2009 to 2013.



For calculation, we need to know current assets and current liabilities. The results are shown in Tab 4.1 and Chart 4.1. From this table and chart, we can find current ratios in five years are increased in general. It was from 1.26 to 1.53 during 2009 to 2013. Because in these years, domestic and international economy began to recover and increased demand for home appliances. Haier expanded production, and increased current assets and liabilities to assist the production. Higher current ratio meant higher level of liquidity, because in this ratios, company had enough cash to pay immediate or short-term liabilities and obligations. Therefore, Haier group's liquidity was good and had the ability using cash to pay current liability during 2009 to 2013.

The trend of quick ratio presents in Chart 4.2.

Chart 4.2 Trend of quick ratio of Haier group between 2009 to 2013.

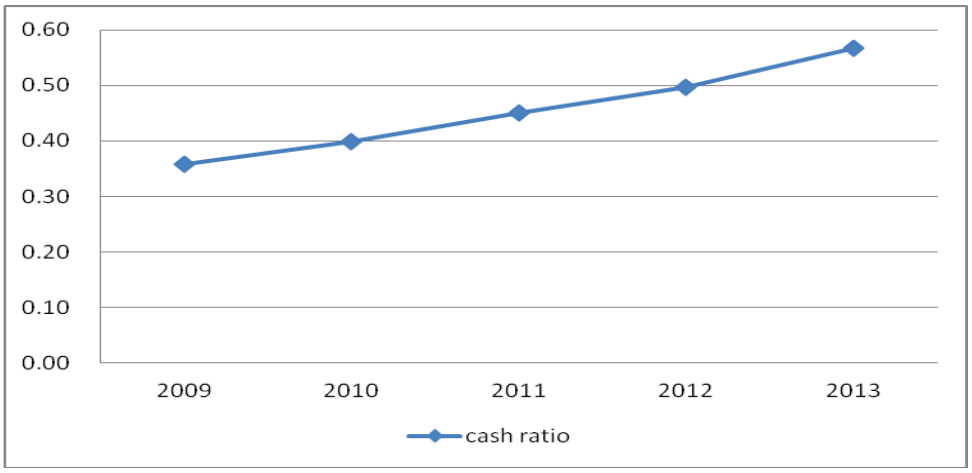


For calculation, we need to know current assets, inventories and current liabilities. The results present in Tab 4.1 and Chart 4.2. Between 2009 to 2010, quick ratio decreased and was about 1.17 to 1.05, the results were in other year increased stable. Due to the influence of government's policy about the industry of home appliances in the countryside reduced. The inventories increase, it effected the quick ratio because inventories were illiquid, it did not convert into cash quickly. Hence, quick ratio was decreased in 2010. Because between 2011 to 2013, Haier began to rapidly increase the inventories, due to the policy of government stimulated the industry of home appliances in the countryside. So the quick ratio was increased between 2011 to 2013. Higher quick ratio indicated a greater liquidity. Quick ratio was more precisely than

current ratio because inventories are not easier to convert into cash. If a company want to acquire more cash and higher liquid, it must be first sell the inventories to convert into cash. So Haier group had the ability to use cash or some current assets converted into cash to repay current liabilities and obligations. It is good for company during 2009 to 2013.

The trend of cash ratio shows in Chart 4.3

Chart 4.3 Trend of cash ratio of Haier group between 2009 to 2013.



For calculation, we need to know cash, marketable securities and current liabilities. The results are shown in Tab 4.1 and Chart 4.3. For the Tab 4.1 and Chart 4.3, we can see cash ratio increased from 2009 to 2013 and increased about 0.36 to 0.57. The trend of cash ratio increased rapidly and in Chart 4.3, the line tilted up. Because the effect of Haier's band, more investor would like buy the marketable securities of Haier, and Haier also acquired more investment capital. Marketable securities were frequently traded at the market. Higher cash ratio meant greater liquid to a company. Due to this ratio includes cash and marketable securities, if marketable securities increase, it will effect the result of cash ratio. The cash ratio of Haier was not high in general, but it increased in these year, I think it will be good for company in the future.

4.2 Activity ratios of Haier group

Activity ratios measure how utilization of a company uses assets. In this part we divide into two parts, one is about receivable turnover and inventory turnover. Other

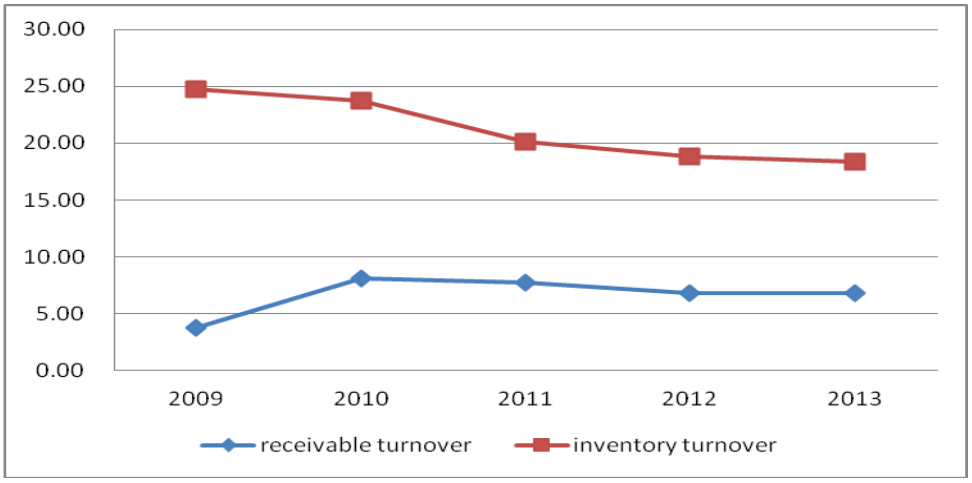
part includes number of days of inventory (DOH), days of sales outstanding (DSO) and assets turnover. The results of first part is shown in Tab 4.2 and the trend of first part present in Chart 4.4. We use the formulas (2.24), (2.23), (2.27), (2.29) and (2.22) which show in chapter 2.3.4.

Tab 4.2 Activity ratio of first part of Haier group between 2009 to 2013.

	2009	2010	2011	2012	2013
Receivable turnover	3.72	8.09	7.76	6.84	6.85
Inventory turnover	24.79	23.76	20.14	18.83	18.37

The trend of receivable turnover and inventory turnover show in Chart 4.4.

Chart 4.4 Trend of first part of Haier group between 2009 to 2013.



For calculation, we need to know total revenue and total receivables. The results are shown in Tab 4.2 and line chart represent in Chart 4.4. In 2009, the receivable turnover was lower than other years. Due to financial crisis in 2008, the global economy situation was serious and kinds of industry developed badly. So the revenues of Haier increased a little and receivable turnover was low in 2009. Between 2010 to 2013, the receivable turnover was decreased. It was about 8.09 to 6.85. Because in these four years (from 2010 to 2013), Haier entered into mature development stage, the speed of production, orders and any other items increased stable compared with the rapid development stage. So the ratio decreased during four years. Higher receivable turnover ratio can indicate the credit or collection policy of company are stringent and it is safety to invest. Because account receivable can convert into cash and if company

gets account receivable from consumers quickly, it will good for company's credit. Receivable turnover was not low in Haier group except in 2009, generally, it was good for Haier group.

For calculation, we should know cost of good sold and inventory. The results present in Tab 4.2 and line chart also shows in Chart 4.4. From this table and line chart, we can find the inventory turnover of Haier was decreased in five years. Due to Haier group' competition strategy "zero inventory". Zero inventory meant lower cost than other companies and sold with average price. The revenues was higher than other companies. Another reason was Haier group cooperated with Internet, there were some policies changed such as the fashion of products to the cost of good sold. Due to less inventories can improve efficiency of inventories management and decreased the cost of management. Therefore, higher inventory turnover ratio indicates highly effective inventory management. Inventory turnover ratio was about 20 in Haier, it represented the good management of inventory in Haier during 2009 to 2013.

Second part describes number of days of inventory, days of sales outstanding and assets turnover. The results are shown in Tab 4.3.

Tab 4.3 Activity ratios of second part of Haier group between 2009 to 2013.

	2009	2010	2011	2012	2013
Number of days of inventory (DOH)	14.72	15.36	18.13	19.39	19.87
Number of days of reveivables (DSO)	98.01	45.10	47.01	53.37	53.31
Assets turnover	2.07	3.68	3.49	3.05	2.85

For calculation of DOH, we need to know inventory and cost of goods sold and the days of per year (usually uses 365). The results present in Tab 4.3. From this Tab 4.3, we can find during five years, inventory conversion period increased. It was from 14.72 to 19.87. Because between 2009 to 2013, Haier developed a new strategy for inventory "zero inventory".This strategy can manage the inventories efficiently and also can decreased the cost of management. For this ratio, it was in contrast with inventory turnover, lower ratio was better for the company. Because lower DOH

means a company did not have adequate inventory. Therefore, Haier had low ratio, and it was good for the management of inventories in company.

For calculation of DSO, we need to know accounts receivable, revenue and the days of per year (usually uses 365). The results are shown in Tab 4.3. In 2009, the ratio was higher than other years and it was about 98.01. Because based on internal information, accounts receivable increased more than revenues. On external information, the production of Haier growed rapidly and got more orders from individual or groups. So accounts receivable increased. Other four years from 2010 to 2013, it was increased in general. Because in these years, Haier entered into a mature development stage and revenues or other items began to growth stable. Lower days of sales outstanding indicates highly efficient credit and collection. Because if account receivable can get from consumers quickly, it will good for company's credit and collection and is also good for company's liquidity. However, Haier had higher ratios between 2009 to 2013, it was bad for company.

For calculation of assets turnover, we need to know total revenues and total assets. The results present in Tab 4.2 and line chart shows in Chart 4.4. From these Tab and Chart, it increased in 2009 and 2010, but in 2011 it decreased and it decreased from 3.49 to 2,85. Based on external information, the government's policy to stimulated home appliances industry, and revenues of Haier also increased rapidly. During 2011 to 2013, asset turnover ratio decreased, because from 2011, Haier group entered a mature period and revenues began to trend stable, it was same as total assets. Hence the assets turnover decreased during 2011 to 2013. A higher assets turnover is better for a company. Because assets turnover means how well the company can generate revenues within a given level of assets. Because In Haier group, this ratio was not low and it was a good sigh for company to utilize assets reasonable.

4.3 Solvency ratios of Haier group

Solvency ratios measure company's ability to pay long-term obligations. In this part we use three ratios to describe the solvency in Haier group. The results are shown in

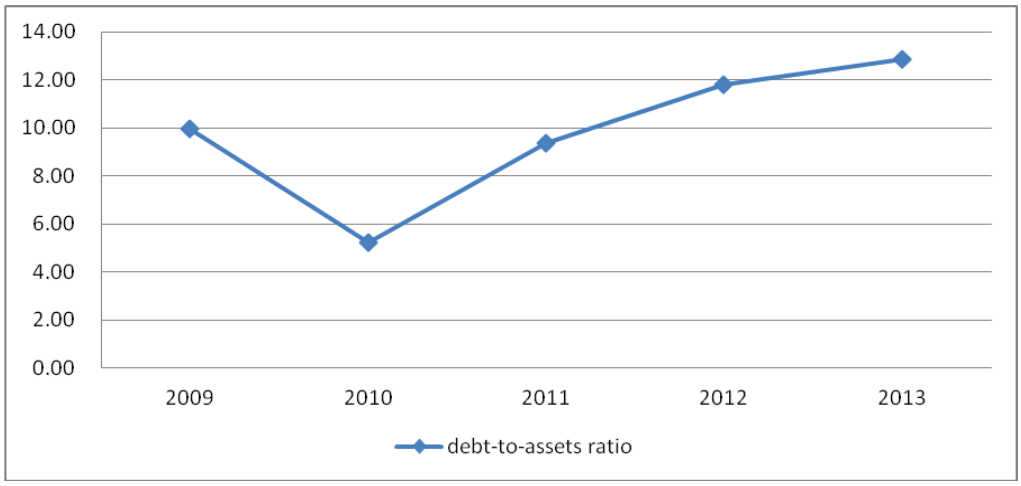
Tab4.3, Tab 4.4 and each item's line chart presents in Chart 4.5, Chart 4.6 and Chart 4.7.We use formulas (2.17), (2.18) and (2.20) which show in chapter 2.3.3.

Tab 4.3 Solvency ratios of Haier group between 2009 to 2013 (%).

	2009	2010	2011	2012	2013
Debt-to-assets ratio	9.95	5.22	9.36	11.82	12.83
Debt-to-equity ratio	73.20	68.11	108.86	112.51	99.18

The trend of debt-to-assets you can see in Chart 4.5.

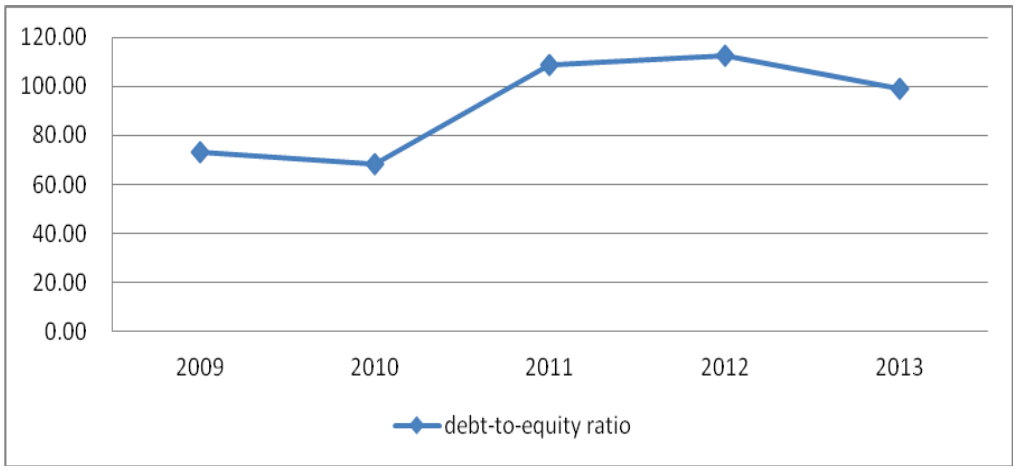
Chart 4.5 Trend of debt-to-assets ratio of Haier group between 2009 to 2013.



For calculation, we need to know total debt and assets. The result presents in Tab 4.3 and the line chart is shown in Chart 4.5. We can find in 2009 and 2010, it decreased to 5.22%. Because during these two years, global economics recovered and demand of home appliances increased, Haier expanded production and other policies stimulated the selling, assets of Haier increased rapidly. Then from 2011, it increased and it was about 9.36% to 12.83%. Due to in 2009 and 2010, some policies of government had changed, and Haier entered into stable development stage, one of aim was to growth stable of profit and improved brand quality of company. So it had to strong ability to fulfill its long-term debt. For debt-to-asset ratio, lower debt indicates lower financial risk and stronger solvency. Because lower debt ratio means company has more assets to pay its long-term debt. Hence debt-to-asset ratio was lower in Haier group, so it was good signal for company and had strong credit to face long-term risk.

The trend of debt-to-equity ratio shows in Chart 4.6.

Chart 4.6 Trend of debt-to-equity ratio in Haier group between 2009-2013



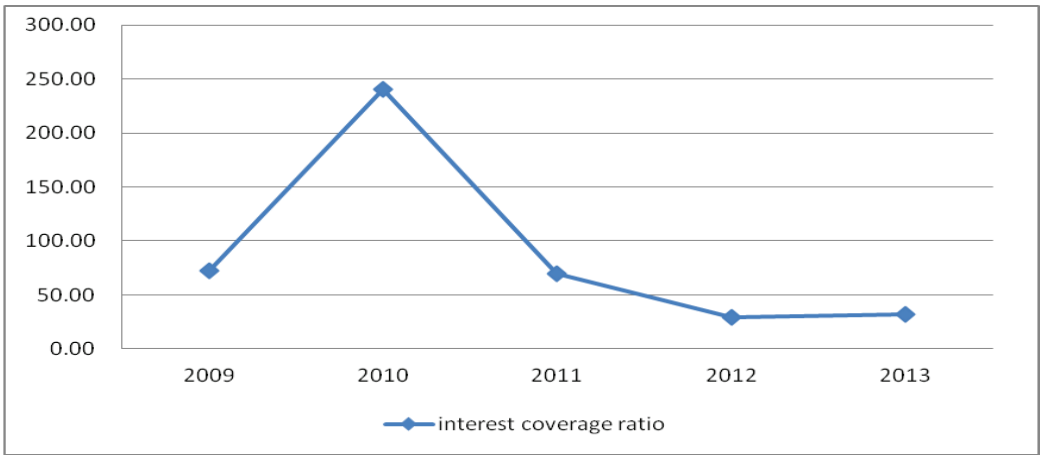
For calculation, we need to know total equity and debt. The results are shown in Tab 4.3 and line chart presents in Chart 4.6. Between 2009 and 2010, the ratio decreased. Because during these two years, global economics began to recover and more investors started to invest in Haier again. Hence in 2009 and 2010, debt-to-equity ratio decreased. From 2011 to 2012, it increased and it was about 108.86% to 112.51% . Because from 2011, Haier group changed some strategies of operating. Due to Haier entered a stable development stage and Haier decided to reinvest more areas. During two years, Haier didn't pay back the dividend to shareholders. So the debt-to-equity in 2011 and 2012 increased. In 2013, debt-to-equity decreased and it was 99.18%. Because in 2013, Haier didn't need much capital to invest. So the ratio decreased. Debt-to-equity is similar to the preceding ratio (debt-to-asset), lower ratio is good for a company. Because lower debt means a company can measure the long-term risk quickly. Haier group had relative lower ratio in 2009 and 2010, it represented Haier can dispose the long-term risk quickly and it was good sing to company. During 2011 to 2013, debt-to-equity ratio was higher in Haier group, so it was bad for company to face the long-term risk.

Tab 4.4 Solvency ratios of Haier group between 2009 to 2013.

	2009	2010	2011	2012	2013
Interest coverage ratio	72.62	240.24	69.66	29.41	31.67

The trend of interest coverage ratio presents in Chart 4.7.

Chart 4.7 Trend of interest coverage ratio of Haier group between 2009 to 2013.



For calculation, we should know EBIT and interest payment. The results are shown in Tab 4.4 and line chart in Chart 4.7. We can see in 2010, the interest coverage ratio is especially higher than other years. Due to in 2010, Haier expanded production and EBIT was higher than preceding years. The ratio during 2010 to 2012 was decreased and it was from 240.24 to 29.41. Because based on external information, Haier entered into stable development stage and EBIT increased slower than preceding years. So interest coverage ratio decreased during 2010 to 2012. In 2013, interest coverage ratio increased. Higher interest coverage ratio means stronger solvency, because a company not only can use total assets to service its debt, but also can use operating profit. Hence, higher interest coverage ratio is good for a company. Interest coverage ratio was higher in Haier group and it was good for company to service its long-term debt.

4.4 Profitability ratios of Haier group

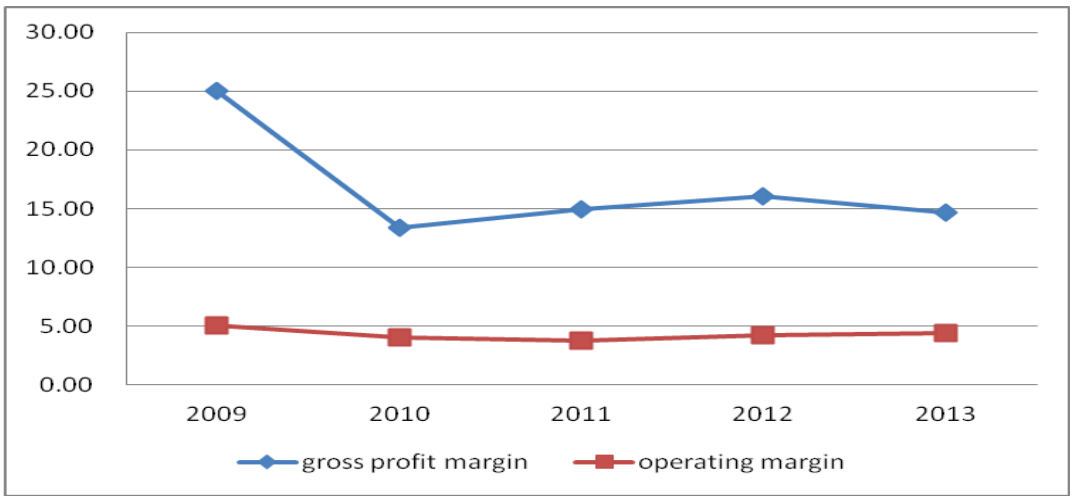
In this part, we will use gross profit margin, operating margin, return on assets and return on equity to measure the ability to generate profit from invested capital in the from of return during a period time. The results of gross profit margin and operating margin shows in Tab 4.5 and line chart presents in Chart 4.8. We will use formulas (2.7), (2.8), (2.11) and (2.12) in chapter 2.3.1.

Tab 4.5 Gross profit margin and operating margin of Haier group between 2009 to 2013(%).

	2009	2010	2011	2012	2013
Gross profit margin	25.03	13.33	14.99	16.08	14.68
Operating margin	5.08	4.03	3.75	4.18	4.37

The trend of gross profit margin and operating profit margin show in Chart 4.8.

Chart 4. 8 Trend of gross profit margin and operating profit margin of Haier group in 2009 to 2013.



For calculation, we need to know gross profit and total revenue. The results are shown in Tab 4.4 and line chart presents in Chart 4.8. In 2009, the ratio was higher than other years and it was about 25.03%. The reason is numerator gross profit increased a lot in 2009. Because zero "inventory strategy", it decreased the cost of products and sold in average price in the market, then increased gross profit in company. Also, Haier invested a lot of capital in product design and it also increased gross profit. In 2010, gross profit ratio decreased a lot and it was 13.33%. Because some policies of government changed and Haier group adjusted some marketing strategies. Therefore, in 2010, gross profit ratio decreased. After 2010, trend of gross profit ratio is stable. It was about 15.00%. Because in these years, Haier entered into stable development period, gross profit and total revenue didn't growth rapidly. For this ratio, higher gross profit margin means a company earns a lots profit during a period. Because higher gross profit means product has a competitive advantage in the

market and a company will has higher revenues. The gross profit ratio was not high in Haier , so it was bad for company.

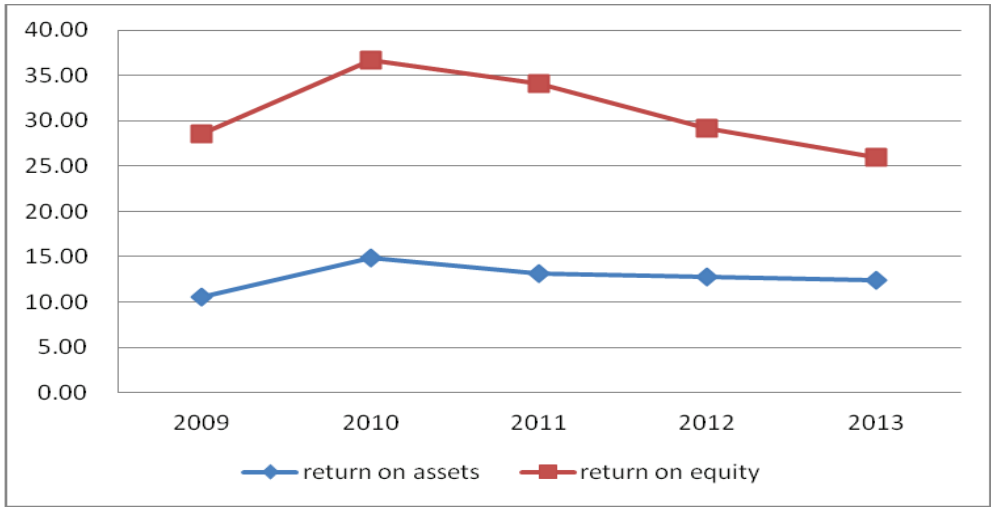
For calculation, we should know operating profit and total revenue. The results present in Tab 4.5 and line chart shows in Chart 4.8. We can see the variation of operating margin was not enormous during 2009 to 2103 and the line chart was also stable and it was about 4.00%. Because Haier group entered a stable development period, the speed of operating profit and total revenue increased slowly. Therefore, the operating margin was stable during five years. Higher operating margin is better for a company. Because operating margin associate with operating costs, if operating costs is higher than operating profit, the operating margin will be low. So if company wants a higher operating margin, it should control operating costs carefully. However, the ratio was not high in Haier group, it meant the company did not control operating costs well and it was bad for company during 2009 to 2013.

Tab 4.6 Return on assets and return on equity of Haier group between 2009 to 2013 (%).

	2009	2010	2011	2012	2013
Return on assets	10.52	14.83	13.10	12.76	12.45
Return on equity	28.52	36.72	34.07	29.23	25.94

The trend of return on assets and return on equity show in Chart 4.9.

Chart 4.9 Trend of return on assets and return on equity of Haier group between 2009 to 2013.



For calculation, we should know the EBIT and total assets. The results are shown in Tab 4.6 and the line chart presents in Chart 4.9. In 2009 and 2010, the return on assets increased and increased about 10.52% to 14.83%. Because EBIT increased in two years. Due to the global economic recovered and the policy of government stimulated the expansion of production. So the ratio of return on assets increased between 2009 to 2010. In 2011 to 2013, the ratio decreased and it was about 13.10%. Because, from 2011, Haier entered in the stable development period, EBIT and total assets increased slower than preceding years. Due to return on assets means return earned by a company on its assets and return on all assets will be invested in other activities such as debt, liabilities or equity. Therefore, higher return on assets is better for a company. The ratio was declining in Haier, and it was not good for company.

For calculation, we need to know net income and shareholders' equity. Then uses the formula and the results present in Tab 4.6 and line chart shows in Chart 4.10. We can see in 2009 and 2010, return on equity increased and it was about 28.52% to 36.72%. Because global economics began to recover and demand of home appliances increased. So return on equity increased during 2009 and 2010. From 2011, the ratio of return on equity decreased from 34.07% to 25.94%. Because based on external information, Haier entered into stable development stage, some operating strategies changed and the speed of net income increased slowly. So return on equity decreased during 2011 to 2013. Return on equity is important measures of profitability ratios. Due to return on equity means return earned by a company's equity capital. equity capital includes minority equity, preferred equity and common equity and more equity capital can generate more net income. So higher return on equity is better for company. The ratio of return on equity in Haier group was good during 2009 and 2010, after 2010, return on equity was declining and it was not a good signal for company.

4.5 Dupont analysis of Haier group

In this part we will use Dupont analysis to analyze the profit level of a company. We use the formulas (2.33), (2.34) and (2.35) of Chapter 2.4 to calculate.

ROE can decompose for three parts, net profit margin, assets turnover and financial leverage. Net profit margin divides into also three parts, tax burden, interest burden and EBIT margin. The value of each item in decomposition shows in Tab 4.7 and the absolute change presents in Tab 4.8.

Tab 4.7 Value of each item in decomposition of Haier group between 2009 to 2013.

	2009	2010	2011	2012	2013
ROE	0.2852	0.3672	0.3407	0.2923	0.2594
Net profit margin	0.0388	0.0281	0.0293	0.0307	0.0336
Assets turnover	2.0719	3.6835	3.4892	3.0535	2.8455
Financial leverage	3.5504	3.5428	3.3340	3.1186	2.7156
Tax burden	0.7746	0.7019	0.7913	0.7606	0.7924
Interest burden	0.9862	0.9958	0.9856	0.9660	0.9684
EBIT margin	0.0508	0.0403	0.0375	0.0418	0.0437

Tab 4.8 Absolute change of decomposition of Haier group between 2009 to 2013.

	2009/2010	2010/2011	2011/2012	2012/2013
ROE	0.0820	-0.0265	-0.0484	-0.0329
Net profit margin	-0.0106	0.0011	0.0014	0.0029
Assets turnover	1.6116	-0.1943	-0.4357	-0.2080
Financial leverage	-0.0077	-0.2087	-0.2154	-0.4030
Tax burden	-0.0727	0.0894	-0.0307	0.0318
Interest burden	0.0096	-0.0102	-0.0196	0.0024
EBIT margin	-0.0105	-0.0027	0.0042	0.0020

We will analyze trend of the change in component ratio by gradual changes. Gradual changes can quantify the changes in the basic ratio due to the change in the component ratio. ROE is the basic ratio of net profit margin, assets turnover and financial leverage. Net profit margin is also basic ratio of tax burden, interest burden and EBIT margin. For example of gradual changes of net profit margin, assets turnover and financial leverage between 2009 and 2010 shows in Tab 4.9. The calculations we use formulas (2.36), (2.37) and (2.38) of Chapter 2.4.

Tab 4.9 Gradual changes of ROE of Haier group between 2009 to 2010.

	2009	2010	2009/2010(△a)	△Xai	order
Net profit margin(a1)	0.0388	0.0281	-0.0106	-0.0782	1
Assets turnover(a2)	2.0719	3.6835	1.6116	0.1610	2
Financial leverage(a3)	3.5504	3.5428	-0.0077	-0.0008	3
				0.0820	

For a1: $\triangle ROEa1 = -0.0106 \cdot 2.0719 \cdot 3.5504 = -0.0782$

For a2: $\triangle ROEa2 = 0.0281 \cdot 1.6116 \cdot 3.5504 = 0.1610$

For a3: $\triangle ROEa3 = 0.0281 \cdot 3.6835 \cdot -0.0077 = -0.0008$

The sum of three component was equal to the change of ROE between 2009 and 2010.

Gradual changes of net profit margin, assets turnover and financial leverage between 2010 and 2011, 2011 and 2012, 2012 and 2013 show in Tab 4.10, Tab 4.11 and Tab 4.12. The calculations we use formulas (2.36), (2.37) and (2.38) in Chapter 2.4.

Tab 4.10 Gradual changes of ROE of Haier group between 2010 to 2011.

	2010	2011	2010/2011(△a)	△Xai	order
Net profit margin(a1)	0.0281	0.0293	0.0011	0.0150	3
Assets turnover(a2)	3.6835	3.4892	-0.1943	-0.0202	2
Financial leverage(a3)	3.5428	3.3340	-0.2087	-0.0213	1
				-0.0265	

For a1: $\triangle ROEa1 = 0.0011 \cdot 3.6835 \cdot 3.5428 = 0.0150$

For a2: $\triangle ROEa2 = -0.1943 \cdot 0.0293 \cdot 3.5428 = -0.0202$

For a3: $\triangle ROEa3 = -0.2087 \cdot 0.0293 \cdot 3.4892 = -0.0213$

The sum of three component was equal to the change of ROE (-0.0265) between 2010 and 2011.

Tab 4.11 Gradual changes of ROE of Haier group between 2011 to 2012.

	2011	2012	2011/2012(△a)	△Xai	order
Net profit margin(a1)	0.0293	0.0307	0.0014	0.0164	2
Assets turnover(a2)	3.4892	3.0535	-0.4357	-0.0446	1
Financial leverage(a3)	3.3340	3.1186	-0.2154	-0.0202	3
				-0.0484	

For a1: ΔROEa1 = 0.0014 · 3.4892 · 3.3340 = 0.0164

For a2: ΔROEa2 = -0.4357 · 0.0307 · 3.3340 = -0.0446

For a3: ΔROEa3 = -0.2154 · 0.0307 · 3.0535 = -0.0202

The sum of three component was equal to the change of ROE (-0.0484) between 2011 and 2012.

Tab 4.12 Gradual changes of ROE of Haier group between 2012 to 2013.

	2012	2013	2012/2013(△a)	△Xai	order
Net profit margin(a1)	0.0307	0.0336	0.0029	0.0274	2
Assets turnover(a2)	3.0535	2.8455	-0.2080	-0.0218	3
Financial leverage(a3)	3.1186	2.7156	-0.4030	-0.0385	1
				-0.0329	

For a1: ΔROEa1 = 0.0029 · 3.0535 · 3.1186 = 0.0274

For a2: ΔROEa2 = -0.2080 · 0.0336 · 3.1186 = -0.0218

For a3: ΔROEa3 = -0.4030 · 0.0336 · 2.8455 = -0.0385

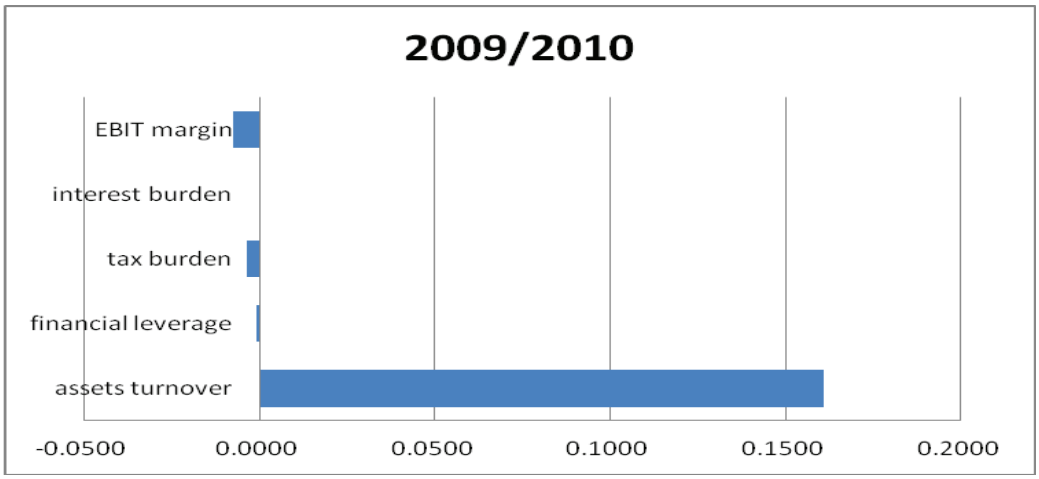
The sum of three component was equal to the change of ROE (-0.0329) between 2012 and 2013. Other △Xai included tax burden, interest burden and EBIT margin werw in 2009 to 2013 showed in Tab 4.13. The second sum was equal to net profit margin.

Tab 4.13 Gradual changes of each item of Haier group between 2009 to 2013.

	2009/2010	2010/2011	2011/2012	2012/2013
Net profit margin	-0.0782	0.0150	0.0164	0.0274
Assets turnover	0.1610	-0.0202	-0.0446	-0.0218
Financial leverage	-0.0008	-0.0213	-0.0202	-0.0385
Sum	0.0820	-0.0265	-0.0484	-0.0329
Tax burden	-0.0036	0.0036	-0.0011	0.0013
Interest burden	0.0004	-0.0003	-0.0006	0.0001
EBIT margin	-0.0073	-0.0021	0.0031	0.0015
Sum	-0.0106	0.0011	0.0014	0.0029

We use these data to analyze the profit leverage in Haier group. This part divides into four period to describe, 2009/2010, 2010/2011, 2011/2012 and 2012/2013. The bar chart of first period presents in Chart 4.10.

Chart 4.10 Influence of each item of Haier group between 2009 to 2010.

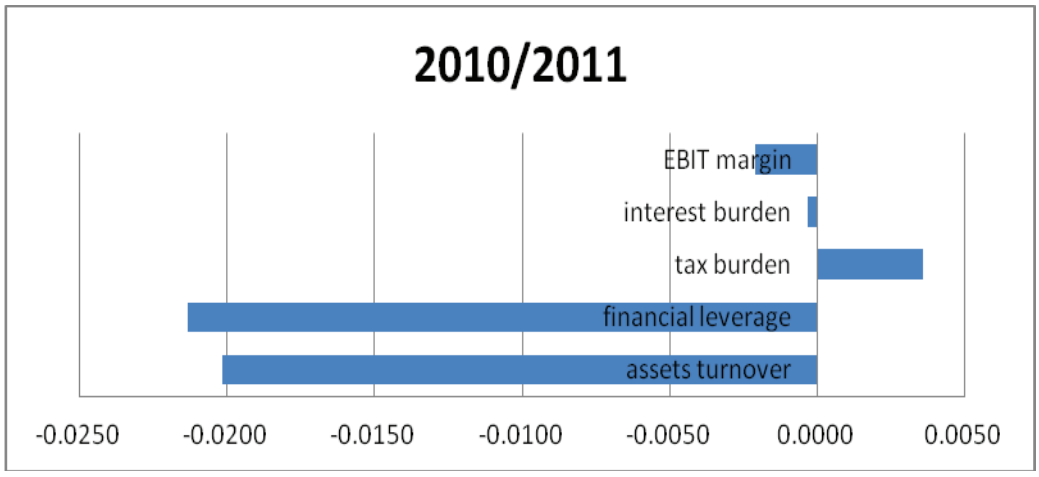


Form this chart, we can see the assets turnover is higher than other items and it is about 0.0160. For calculation of assets turnover, we need to know revenues and total assets. Because global economics began to recovered and stimulated the demand of home appliances around the world. Revenues and total assets increased. Therefore the assets turnover increased in 2009. EBIT margin was negative and smaller in decomposition and it is -0.0073. Calculating EBIT margin should know EBIT and revenues. Due to global economics began to recover, revenues and other expenses had also increased of Haier group. Therefore, EBIT decreased. EBIT margin was negative.

According to the principle of Dupont analysis, Haier group should increase △Xai of EBIT margin and then increases △Xai of net profit margin to improve the changes of ROE.

The bar chart of second period presents in Chart 4.11.

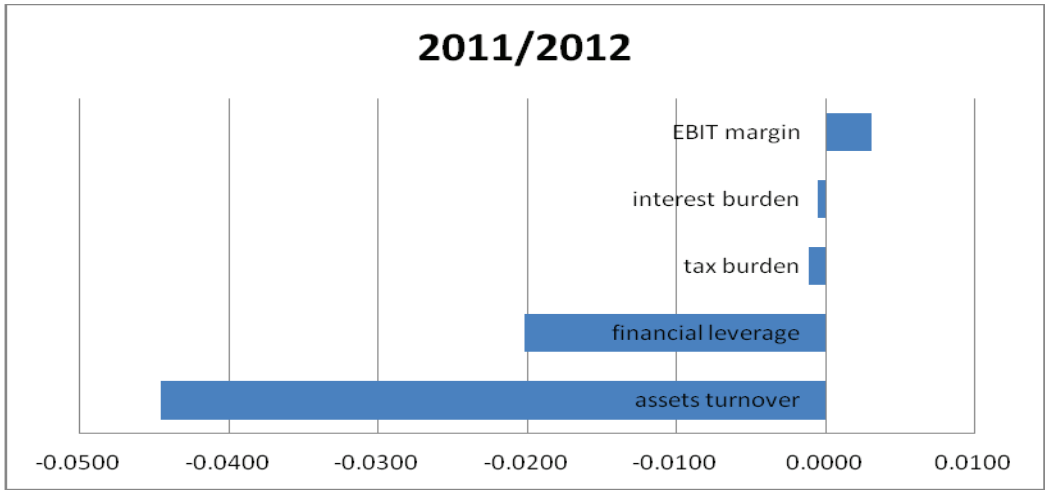
Chart 4.11 Influence of each item of Haier group between 2010 to 2011.



From Chart 4.11, the financial leverage was negative and it was about -0.0213. It was the minimum number in decomposition. Financial leverage need to know total assets and equity. Due to the global economic recovered and policies of government stimulated the demand of home appliances, assets of Haier increased faster than total equity in 2010. However in 2011, Haier began to enter a stable development stage and total assets increased slower than 2010. So the result of financial leverage was negative. Assets turnover is also negative in decomposition. For calculation of assets turnover we need to know revenues and total assets. Because in 2011, Haier group entered into a stable development stage and revenues and total assets increased slower than 2010. So the ratio of assets turnover was negative. According to the principle of Dupont analysis, increasing the △Xai of financial leverage and assets turnover to increase the changes of ROE.

The bar chart of third period presents in Chart 4.12.

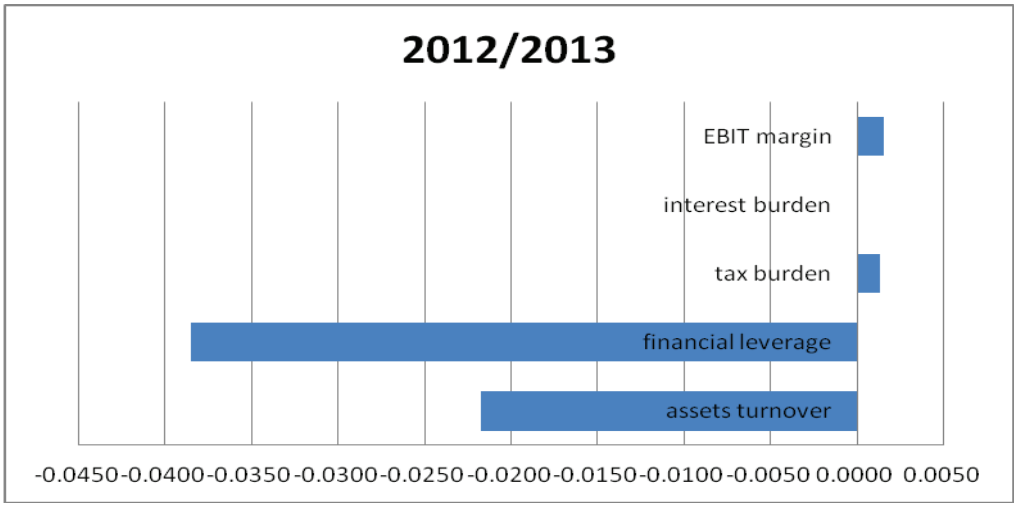
Chart 4.12 Influence of each item of Haier group between 2011 to 2012.



From Chart 4.12, we can see the △Xai of assets turnover ws negative and decreased. The number is -0.0446. For calculation of assets turnover, we need to know revenues and total assets. Because in 2011 and 2012, Haier group entered a stable development stage, and some amount of items of assets changed slower than preceding years. So the ratio of assets turnover decreased. Financial leverage was also negative. EBIT margin was positive and the number was 0.0031. For EBIT margin we should know EBIT and revenues. Because in 2011 and 2012, Haier group changed and made some new strategies to operating and selling. Hence EBIT, revenues increased and EBIT margin was positive. According to the principle of Dupont, Haier group should increase the △ Xai of assets turnover and financial leverage to improve the changes of ROE in company.

The bar chart of fourth period presents in Chart 4.13.

Chart 4.13 Influence of each item of Haier group between 2012 to 2013.



From Chart 4.13, we can find financial leverage was also negative and the number was -0.0385. It was smaller than other △Xai of other item in decomposition. For calculation of financial leverage, we need to know total assets and equity. Due to the changes of total assets decreased more than equity during 2012 to 2013. Because in 2012 and 2013 Haier group changed some policies and some current assets converted into equity, total assets decreased and equity increased. Therefore, the ratio of financial leverage decreased. Assets turnover was also negative and the number was -0.0218. Because in 2012 and 2013, Haier group entered into a stable development stage and selling was stable. So assets turnover was negative. Tax burden was positive and it was about 0.0013. For tax burden, we should know net income and EBT. Because in recent years, government decreased some taxation of company and net income increased. So the ratio of tax burden increased. Hence, according to the principle of Dupont analysis, Haier group should increase △Xai of financial leverage and assets turnover to improve the changes of ROE in company.

4.6 Summary

In this part, we used results to make financial analysis from four financial ratios: liquidity ratio, solvency ratio, activity ratio and profitability ratio.

For liquidity ratio, we used current ratio, quick ratio and cash ratio to analysis. The results of three ratios had the similar trend from 2010. From 2010, current ratio, quick ratio and cash ratio increased in general. This trend was a good signal for company during five years. Because in 2010, for the external cause, global economics began to recover and demand of home appliances increased. For internal cause, some policies about home appliances of government developed well and it also increased the selling in the country. These influences stimulated the selling increased of Haier group. Due to these influences, Haier group's liquidity will be better in the future.

For solvency ratio, we used three ratios: debt-to-asset ratio, debt-to-equity ratio and interest coverage ratio. Debt-to-asset ratio decreased a lot in 2010 and it was 5.22%. This trend was also good for company because lower debt-to-assets ratio indicated lower financial risk and stronger solvency. Because during 2009 and 2010, global economics recovered and demand of home appliances increased, Haier expanded production and other policies stimulated the selling. Hence the assets of Haier also increased rapidly. If amount of assets increases a lot than debt, the ratio will be lower. Debt-to-equity ratio increased from 68.11% to 112.51% during 2010 to 2012. This trend was bad for company during these years. Because from 2011 Haier group changed some strategies of operating and it affected the equity. Interest coverage ratio increased a lot in 2010 compared with other years because Haier expanded production and due to the home and abroad economic situation recovered, EBIT was higher than preceding years. This trend was good for company because higher interest coverage ratio meant high solvency. Therefore, form preceding analysis, the solvency of Haier group will be good in the future.

For activity ratio, we divided into two types: turnovers and days. For turnovers, we used receivable turnover, inventory turnover and assets turnover. The trend of receivable turnover decreased from 2010. Because was in these four years, Haier entered into mature development stage, the speed of production, orders and any other items increased stable compared with the rapid development stage. However, for five years (2009 to 2013) we can see the trend was good for company. For inventory turnover, it decreased during five years. Because Haier group's competition strategy "zero inventory" and it helped Haier decreased cost of operating and selling. Though

the trend was decreased a little, it was also good for company's management of inventory. Assets turnover decreased a little from 2011 to 2013 because Haier group entered a mature period and revenues began to trend stable, it was same as total assets. It was also a good signal for company during 2009 to 2013. About days, we use days of inventory (DOH) and days of receivable (DSO). For days of inventory, the results increased for five years but they were not higher. It was good for company's inventory. For days of receivable, the result was higher than other years in 2009 because based on external cause the production of Haier growed rapidly and got more orders from individual or groups in 2009. In other years, the results were also high, it was bad for company's credit and collection. In general, these ratios reflect a good signal for Haier group and the assets maybe use efficiently in the future.

For profitability ratio, we used gross profit margin, operating margin, return on asset and return on equity. The results of gross profit margin and operating margin were higher in 2009 because "zero inventory" strategy, it decreased the cost of products and sold in average price in the market. Other years the results did not change a lot because Haier entered into a stable development stage, the revenues and other relative items decreased. These trends were bad for Haier during 2009 to 2013. The results of ROA decreased from 2011 to 2013 because Haier entered in the stable development period, EBIT and total assets increased slower than preceding years. We use Dupont analysis the influence of ROE. From this analysis, Haier group should increase the △Xai of financial leverage and assets turnover in the future, then ROE will be increase. This trend was bad for Haier group during 2009 to 2013.

In summary, Haier group had a good financial performance and situation from 2009 to 2013.

5 Conclusion

According to the results of two financial methodology, they can give us some information about the health of company. For investors, they can choose more suitable company to invest. For creditors, they can decide whether they will lend money to a company. For managers of a company, they can adjust the strategies, members and selling policies or other measures to face the next period.

This thesis was aimed to assess the financial health of the Haier group though using varise ratios and make the assessment. The thesis divided into five parts. The first and last chapter was introduction and conclusion. Second chapter was about theroetical description, third chapter was about Haier group and common-size analysis of Haier group, fourth chapter was about financial ratio analysis of Haier group.

In chapter 2, we described the financial statement, common-size analysis, financial ratio analysis and Dupont analysis. Firstly, we introduced financial statement. Financial statement divided into three statement: balance sheet, income statement, cash flow statement and also describe some items of three statement. Then we introduced common-size analysis. Common-size analysis had two parts: vertical common-size analysis and horizontal common-size analysis. We also described the definition and formula of them. Third, we introduced the financial ratio analysis and their definition and formulas. Financial ratio analysis included liquidity ratio, activity ratio, solvency ratio and profitability ratio. Finally, we described the Dupont analysis.

Chapter 3 was about basic information of Haier group and common-size analysis of Haier. First part was basic information of Haier group: history, business structure of company, competition of industry and development of company. Second part was about common-size analysis of Haier. We used data from balance sheet and consolidate income statement of Haier. Then used vertical common-size analysis to compare each year's data and made histogram. Some unusual data was described reasons. Finally, we used horizontal common-size analysis to analyze between two different years from 2009 to 2013. We used absolute changes and percentage changes of balance sheet and consolidated income statement of Haier to analyze.

In chapter 4, we used financial ratio analysis and formulas to evaluate company's health. First, we calculated the four financial ratios: liquidity ratio, activity ratio, solvency ratio and profitability ratio. For liquidity, it is good for Haier group to convert assets into cash quickly during 2009 to 2013. About solvency, the data and trends showed the good signal for Haier group's long-term debt and company could dispose long-term risk well from 2009 to 2013. For activity, results showed the good signal for company's assets utilization expect the ratio of DSO from 2009 to 2013. For profitability, the data and trends showed the bad signal to company from 2009 to 2013 and it is bad for company's competitive position. At the end of chapter, we described the Dupont analysis of ROE and analyze the influence of each different two years form 2009 to 2013. The results presented that Haier group should increased financial leverage and assets turnover to improve ROE of company.

Haier group was a one of biggest home appliance company in China, due to the global economic was weaker, intense competition, some policies of government changed and other market risk, the financial situation of Haier was also strait during five years (from 2009 to 2013). Therefore Haier group should instant to innovate and make suitable selling, operating and management strategies to increase company's competition.

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List of Abbreviations

IT	Inventory turnover
DSI	Days sales of inventory
DSO	Days of sales outstanding
FAT	Fixed assets turnover
TAT	Total asset turnover
GPM	Gross profit margin
OPM	Operating profit margin
ROA	Return on assets
ROE	Return on equity
EBIT	Income before income taxes and minority interest
EBT	Income before minority interest
EAT	Net income
NPM	Net profit margin

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Student's name and surname

List of Annexes

Annex 1: Balance sheet of Haier group.

Annex 2: Income statement of Haier group.

Annex 1: Complete balance sheet of Haier group from 2009 to 2013.(1000RMB)

	2009	2010	2011	2012	2013
NON-CURRENT ASSETS					
Property, plant and equipment	679,451	863,585	990,212	1,308,806	1,488,068
Investment properties	22,472	20,800	19,128	14,723	13,531
Lease prepayments	79,241	171,229	259,377	254,735	307,013
Goodwill					6,123
Intangible assets	1,614	858	79,811	74,657	90,455
Investment in an associate	25,457	–			
Prepayment for purchase of land and building			—	61,177	309,095
Prepayments for investments					41,400
Available-for-sale investments	7,670	6,000	8,625	2,925	2,925
Deferred tax assets	21,459	221,311	382,642	455,634	592,656
Total non-current assets	837,364	1,283,783	1,739,795	2,172,657	2,851,266
CURRENT ASSETS					
Inventories	389,461	1,306,343	2,114,687	2,479,191	2,891,587
Trade receivables	3,335,201	3,908,094	5,581,424	6,924,088	7,558,920
Prepayments, deposits and other receivables	122,725	516,645	870,516	1,207,218	1,534,718
Pledged deposits	82,976	391	87,402	61,804	220,350
Cash and Time deposits	1,447,807	2,705,607	3,961,781	5,368,308	6,824,322
Total current assets	5,378,170	8,437,080	12,615,810	16,040,609	19,029,897
CURRENT LIABILITIES					
Interest-bearing bank loans			25,000	39,800	159,633
Trade payables	1,628,781	1,523,629	2,550,908	2,961,504	3,202,301
Customers' deposits, other payables and accruals	2,326,471	4,344,739	5,326,539	6,494,628	7,776,253

Tax payable	119,058	612,237	619,362	837,476	693,964
Provisions	206,476	291,963	466,466	534,331	537,244
Put option liabilities			900	53,570	22,400
Due to a fellow subsidiary					15,000
Due to non-controlling shareholders					24,301
Total current liabilities	4,280,786	6,772,568	8,989,175	10,921,309	12,431,096
NET CURRENT ASSETS	1,097,384	1,664,512	3,626,635	5,119,300	6,598,801
TOTAL ASSETS LESS CURRENT LIABILITIES	1,934,748	2,948,295	5,366,430	7,291,957	9,450,067
NON-CURRENT LIABILITIES					
Convertible bonds			669,849	699,643	716,835
Interest-bearing bank loans	74,000	-			302,891
Provisions	100,524	151,555	224,944	266,884	
Due to non-controlling shareholders				59,537	
Deferred income		43,609	42,910	42,210	44,145
Deferred tax liabilities	9,588	9,257	8,826	8,755	8,503
Put option liabilities			114,100	374,700	305,600
Share-based payment liabilities					14,429
Total non-current liabilities	184,112	204,421	1,060,629	1,451,729	1,392,403
Total liabilities	4,464,898	6,976,989	10,049,804	12,373,038	13,823,499
NET ASSETS	1,750,636	2,743,874	4,305,801	5,840,228	8,057,664

EQUITY **Equity attributable to equity holders of the parent**					
Issued capital	2,248,843	1,527,611	2,337,909	2,501,181	2,761,754
Reserves	303,688	91,297	1,538,227	2,731,816	4,617,064
Equity component of convertible bonds			149,249	149,249	149,249
Shares held for Restricted Share:Incentive Scheme					-7,863
Non-controlling interests	131,728	191,343	280,416	300,502	336,636
Proposed final dividends					200,824
TOTAL EQUITY	1,750,636	2,743,874	4,305,801	5,840,228	8,057,664

Annex 2: Income statement of Haier group from 2009 to 2013. (1000RMB)

Fiscal year is January-December.RMB'000	2009	2010	2011	2012	2013
Revenues	12,877,993	35,806,672	50,089,857	55,615,047	62,263,162
Cost of sales	-9,654,109	-31,033,259	-42,582,594	-46,673,866	-53,125,613
Gross profit	3,223,884	4,773,413	7,507,263	8,941,181	9,137,549
Selling and distribution costs	-1,928,459	-2,511,004	-4,157,305	-4,569,519	-4,403,956
Administration fees	-680,842	-898,503	-1,572,964	-2,152,495	-2,221,437
Other operating expenses	-12,634	-1,057	-60	-16,651	-9,924
Total operating expenses	-2,621,935	-3,410,564	-5,730,329	-6,738,665	-6,635,317
Other operating revenues	50,549	77,272	99,423	106,250	203,942
Gain on disposal of a jointly-controlled entity	3,783	5,318			
Other income	46,766	71,954	99,423	106,250	203,942
Total operating revenues	12,928,542	35,883,944	50,189,280	55,721,297	62,467,104
Profit from operations	10,306,607	32,473,380	44,458,951	48,982,632	55,831,787
Finance costs	-7,906	-4,691	-22,492	-64,504	-68,334
interest expence	-9,000	-6,000	-27,000	-79,000	-86,000
EBIT	653,592	1,441,430	1,880,865	2,323,262	2,723,840
EBT	644,592	1,435,430	1,853,865	2,244,262	2,637,840
Income tax	-145,297	-427,943	-386,942	-537,285	-547,527
EAT	499,295	1,007,487	1,466,923	1,706,977	2,090,313
Profit attributable to: Equity holders of the parent	448,652	964,363	1,407,458	1,695,122	2,036,882
Profit attributable to: Non-controlling interests	50,643	43,124	1,466,923	11,855	53,431
Exchange differences on translation of foreign operations	-43	676	-23,056	2,108	-7,924

Other comprehensive (loss)/income for the year, net of tax				2,108	-7,924
Total comprehensive income for the year	499,252	1,008,163	1,443,867	1,709,085	2,082,389
Total comprehensive income attributable to: Owners of the parent	448,609	965,039	1,384,496	1,697,159	2,029,773
Total comprehensive income attributable to: Non-controlling interests	50,643	43,124	59,371	11,926	52,616